



Festival Risk Assessment

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Version 2



Introduction

This document is a risk assessment and has been prepared by Michael Kent for and on behalf of the event organizer Q-Dance Australia (QDA). Michael Kent is a chartered OHS professional (ChOHSP) certified by the Safety Institute of Australia (SIA), and is regarded as subject matter expert on event and festival safety.

The purpose of this risk assessment is to identify hazards, analyze risks, and provide recommendations for the treatment or control of risk. At all times the event organizer (QDA) and venue (Sydney International Regatta Centre – SIRC) remain primary duty holders as defined by the WHS Act.

As duty holders, the event organizer, and venue, has an obligation to eliminate or minimize health and safety risks – so far as is reasonably practicable. Undertaking a robust risk assessment, conducting research, consulting with experts, and implementing plans, is central to meeting these legal duties and delivering a safe event.

This document has been written in accordance with the international risk management standard ISO 31000:2009 – *Risk Management*. This standard provides the optimum platform for the identification, assessment and treatment of risk.

During the risk identification process, various scenarios and risks were identified that require prioritization by QDA and SIRC. These risks include:

1. Extreme Weather – and the potential impact on event infrastructure and patrons
2. Medical Emergencies – and the potential for drug overdose or mass casualties
3. Security – and the risks associated with patrons – fights, assault, theft, etc.
4. Illicit Drugs – and the potential for patrons to smuggle, consume and/or deal at the event
5. Construction Work – and the risks associated with high risk work – scaffolding, rigging etc
6. Mass Egress – and the risks associated with post event crowd departure
7. Train Usage – and the behaviour of patrons at Penrith Station or on trains (post event)
8. Water based activities – and the potential for injury or drowning
9. Traffic Management – and the potential for worker or patron injury on roads

A comprehensive risk register has been included in this document which outlines how identified risks can be eliminated or managed to levels as low as reasonably practicable (ALARP).

Risk Perception of Festivals

The concept of risk has been invented to help us understand danger and cope with uncertainty (Krallis and Csontos).

The perception of risks at festivals however is not constant; it varies between stakeholders and individuals. We perceive risk based on what we believe to be the likely outcome, the chance of the outcome occurring, and how concerned we are if it does happen (Slovic). A number of factors contribute to how we perceive risk including - memory, experience, stress, education, and group political pressure. The festival experience is perceived differently by stakeholders, and complicated by the behaviour of the patrons attending.

This difference in risk perception makes it a challenge for the event organizer (and venue) that have a duty to identify risks and either eliminate them or minimize them in accordance with the ALARP principle. Festivals are not risk free, and all mass gatherings carry with them a potential for a variety of incidents and scenarios.

The intent of QDA is to identify and treat foreseeable hazards at the festival that give rise to health and safety risks and to prepare for crowd dynamics. The priority must be to focus on risks where serious injury or death is possible. Acquiring knowledge on these risks is not only the premise of the term “reasonably practicable”, it is important so that informed decisions are made on how risk can be best managed.

State of Knowledge

Critical to the management of event risk is the organizers state of knowledge. A variety of standards, codes of practice, and event guides exist which provide practical steps on how risks can be eliminated or reduced to acceptable levels. Studies and other evidence based research on topics such as risk taking, drug consumption and crowd dynamics, also provide valuable information which should be considered. A concise list of relevant and applicable material has been included in this risk assessment.

Event Safety Policy

The event organizer (QDA) places a significant priority on the safety of the event. Ultimately the risk management plan, and subsequent plans for emergencies, medical, aquatic and security management, are developed to support and achieve the commitments and objectives in the policy.

The Defqon1 – *Event Safety Policy* conveys strong leadership and a commitment towards ensuring:

- Realistic objectives are set and communicated
- Consultation is robust and meaningful
- Compliance with legislation, standards and codes of practice
- An adequate budget is made available for safety
- Contractors understand their responsibilities and apply safe systems of work
- Patrons attending the event are consulted and made aware of risks

The Defqon1 – *Event Safety Policy* is communicated to all internal and external stakeholders and located at the production office, event control, event entrance, and other facilities. It is also available for download on the event website.

Stakeholder Consultation

It is widely acknowledged that consultation is a critical aspect of the risk management process, and central to achieving a safe event however; unless it is structured and meaningful it can be counterproductive. The code of practice – WHS Consultation, Cooperation and Coordination is applied by QDA.

1. Key contractors and workers are consulted in relation to health and safety at the event. This is done through pre-production supplier meetings and via email. At these meetings workers are given an opportunity to raise concerns or contribute to decisions on the management of risk. All workers are provided with a copy of the Event Safety Policy, Risk Assessment, site maps and other health and safety information. A record of each meeting and the attendees is kept.
2. QDA actively consults with the venue (SIRC) as they have concurrent duties in relation to the management of the workplace, and how health and safety will be best managed. The purpose of this consultation is to ensure that each party understands what will be done, how, when and where, and whether particular risks are controlled by QDA or SIRC.
3. QDA actively consults with emergency services (Police, Fire and Ambulance) as the event is a mass gathering and there are often complex issues in relation to crowd management. All combat agencies will be provided with the Event Safety Policy, Risk Assessment, Medical and Security plan (as relevant to that agency). QDA accepts written responses from these agencies. A record of each stakeholder meeting and attendees is kept.

Stakeholders

QDA has identified the following key stakeholders for consultation on this event.

Agency/PCBU	Role/Position	Name	Consultation Method
SIRC	Venue Manager	Kevin Flynn	Meetings, Emails
SIRC	Venue Coordinator	Craig Palmer	Meetings, Emails
SIRC	Event Services Manager	Pip Dickson	Meetings, Emails
SIRC	Site Services Manager	Michael Trenear	Meetings, Emails
Q-Dance Australia	Director	Simon Coffey	Meetings, Emails
Q-Dance Australia	Community & Government Relations	Anna Christie	Meetings, Emails
Q-Dance Australia	Site Manager	Craig De Vita	Meetings, Emails
Q-Dance Australia	Crowd Services and Operations	Sade Lysaght	Meetings, Emails
NSW Police	Detective Inspector	Grant Healey	Meetings, Emails
NSW Ambulance	Superintendent	Lisa Faulkner	Meetings, Emails
NSW Rural Fire Service	Ins. Deputy Fire Control Officer	John Bennett	Meetings, Emails
Nepean Regional Security	Perimeter Security Manager	Gina Field	Meetings, Emails
I-SEC Security	Security Manager	Peter Armstrong	Meetings, Emails
First Care Medical	Medical Coordinator	Matthew Callaway	Meetings, Emails
Uni-Med	Roaming Medical Coordinator	Heath Lyons	Meetings, Emails
Wollongong First Aid	Team Leader Aquatic Safety	Mark McCarthy	Meetings, Emails
Michael Kent Productions	Risk & Safety Consultant	Michael Kent	author

Event Description – Context

Defqon1 (Australia) is a successful music festival staged at the Sydney International Regatta Centre (SIRC) with a capacity of 30,000 persons. Crowd density for SIRC has been assessed separately (see Crowd Capacity Report). This report indicates a workable capacity of 32,586 people.

The event features live DJ music, recreational activities, food and beverage, and other experiential activities such as Jet Ski and Jet Pack rides. To further enhance the 2015 event, organizers will include a newly created campsite across the lake for approximately 5000 of the Festival patrons. The campsite and the associated risks are dealt with separately in the QDA Camping Risk Assessment.

Defqon1 is an 18+ electronic dance music (EDM) festival that attracts a particular patron demographic. The music type at the event is primarily hard style; which is an electronic dance genre mixing hard techno and hardcore music. The music consists of a deep, hard sounding kick drum, intense faded or reversed bass lines, and distorted sounds. This music style is heavily influenced by music and culture from Europe.

Unlike many other festival types, a large percentage of the patrons attend the festival to experience the music and to dance. Dance and fashion are central to the event experience with patrons wearing particular clothing to distinguish themselves in the crowd. The event has been staged successfully for several years and has built up a large following in the EDM scene. Management plans have evolved organically over the course of these parties, with comprehensive security, medical and aquatic safety planning undertaken. Throughout all aspects of the event pre-production, stakeholder consultation is undertaken to ensure that key agencies have an opportunity to contribute to patron safety.





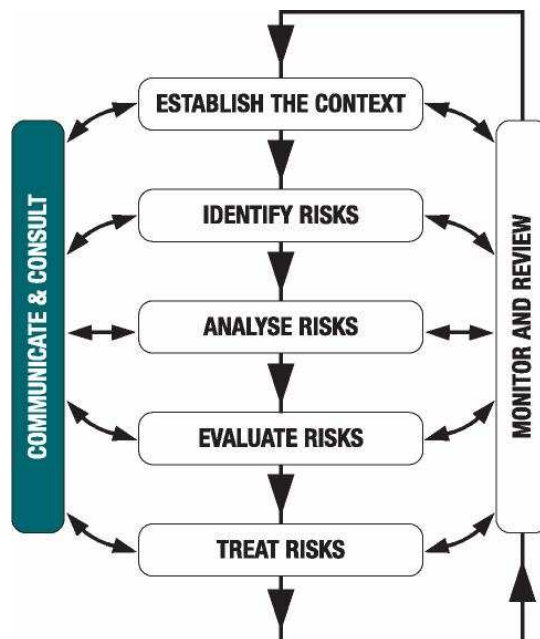
Festival – Key Points

1. SIRC and the event organizer (Q-Dance Australia) have several years experience delivering this event (seven years). Various aspects of planning have developed organically over the course of these recent years.
2. Patrons attending the event are familiar with the venue and best use of public transport – trains and buses as the preferred mode of travel. Travel patterns, additional service requirements and ingress/egress times of the attendees are well known amongst stakeholders including Sydney Rail and NSW Police.
3. Buses are used to transport patrons from and to Penrith Station and a dedicated drop off/loading area is established at the event site. Approx 12,000 patrons will utilize the bus service.
4. Security is strictly managed by the security providers (ISEC and NRS) with a significant Police presence and operation. The event is 18+. All festival patrons will undergo a robust bag and/or body search, and strict conditions of entry are applied. Conditions include restriction of alcohol, weapons, dangerous items, illicit drugs etc.
5. All pathways to amenities and areas in and around toilets, and facilities, will be lit by temporary lighting and signposted. Assembly areas nominated for emergencies will also utilize temporary lighting and be featured in site maps. Evacuation routes will be sign posted in accordance with the final emergency plan.
6. Security will be engaged to maintain order at the Festival, monitor activities and crowd behaviour, and to undertake patrols of the perimeter. Security will manage incidents in accordance with the security management and emergency plan.
7. A dedicated medical centre will be established and manned by experienced paramedics, nurses and overseen by a Doctor. A medical plan has been prepared that identifies response procedures and ambulance access points. NSW Ambulance will manage transports to local hospitals via the ECC. Response teams from Uni-med will handle ad-hoc calls, and assist with general patient care.
8. A dedicated Emergency Control Centre (ECC) will be established for the management of incidents and emergencies. The ECC is represented by combat agencies including Police, Ambulance and Aquatic rescue teams.
9. A variety of plans will be prepared and implemented for the Festival including;
 - Medical Plan
 - Security Management
 - Waste Management
 - Emergency Management
 - Alcohol Management
 - Aquatic Rescue

These plans will be developed by the respective providers and circulated during the consultation process. Copies of the final plans will be located in the ECC.

Risk Management Process

QDA applies the risk management process outlined in ISO 31000:2009 – *Risk Management*. This process is recognized as the optimum method to identify, analyse, evaluate and treat risks in the workplace, and is illustrated below.



Establish the context

QDA as a festival promoter must consider a variety of internal and external factors when conducting the event and any subsequent risk management planning. All festival promoters face challenging natural, political, economic, cultural and behavioral influences that make their event uncertain. These influences may impact on the achievement of the businesses objectives. The effect this ‘uncertainty’ has on QDA objectives is referred to as ‘risk’.

The QDA event objectives are:

1. To establish a positive safety culture amongst workers
2. To eliminate or minimize risks so far as reasonably practicable
3. To deliver a professional, safe and ethical event
4. To comply with legislation, standards and relevant codes

QDA places a high priority on health and safety, and achieving these objectives. The purpose of this risk assessment is to identify risks that may impact on these objectives, and to put in place risk controls that way up all relevant matters. In promoting and delivering a music festival, QDA understands it must have an understanding of the current political landscape. Public perception of these events changes, more pressure is placed on organizers to implement increased harm minimization strategies, and recent deaths at Festivals draw critical public comment.

Externally there is a perception that QDA will not only apply best practice in event management, but that robust risk and safety management planning will be implemented. QDA actively works with local emergency services and medical and safety experts to meet these expectations, and to ensure the event is a safe success.

Risk Appetite Statement

An important aspect of *establishing the context* is outlining the QDA risk appetite or the level of risk that will be accepted on the event. QDA has a legal duty to ensure the health and safety of workers and others (patrons), so far as is reasonably practicable. In undertaking their duties, QDA considers the most significant risks to which they are exposed, and provides an outline of the approach to managing these risks. All plans for the event must be consistent with this statement.

General Statement of Appetite

QDA faces a broad range of risks associated with the event including strategic, financial, environmental, operational, work health and safety, and risks to brand and reputation. The table below indicates the risk levels that QDA will accept in relation to these areas.

ELEMENTS	STATEMENT
STRATEGIC	We will ensure all event operations remain in line with the strategic objectives for our activities conducted in Australia. As the development of our festival brand is critical to our future, our appetite for risks, which may impede our growth, or achieve our objectives, is low.
POLITICAL	We will ensure that our business and government relationships remain a priority, and we will act transparently and in accordance with our stakeholder's expectations. As we place a high level of importance on stakeholder satisfaction, we have a low tolerance for political risk taking.
REPUTATION AND BRAND	The reputation of QDA is integral to our success and growth, and we strive to position ourselves as a leader in festival delivery. Our appetite for reputational risks is medium and any issues that arise will be managed accordingly.
LEGAL AND REGULATORY	We seek to meet or exceed all mandatory legal and regulatory requirements and we have a low appetite for legal breaches and non-compliance.
FINANCIAL	We will strive to ensure our business and festival operations achieve a viable financial return and that attendees are provided with value for money. Our appetite for financial risk taking is medium to high.
OPERATIONAL/ PROJECT	We are committed to ensuring our business and festival operations are aligned with our objectives, and that we will apply a continual improvement model to each event we deliver. QDA has a low appetite for risks arising from failed plans or contractor's services.
WORK HEALTH AND SAFETY	We are committed to providing a safe environment for all attendees (others) and workers. Our aim is to establish a positive safety culture within our workforce that is underpinned by leadership and focused on learning. Our appetite for WHS risk is medium.
ENVIRONMENTAL	We are committed to ensuring that the environment we operate in is not compromised or polluted in any way. Our aim is to work closely with stakeholders to ensure we provide a sustainable, environmentally sound event. Our appetite for environmental risk is low.

Risk Identification

The first and most critical step in the risk management process is the identification of risks that might have an impact on the achievement of the QDA event objectives. The following steps have been undertaken

1. Festival Experience – Mr. Kent has worked on a previous Defqon1 event (and similar EDM festivals) and dance parties. Prior experience as a licensee of EDM events further assists Mr. Kent better understand the risk profile of this event.
2. Post Event Reports – a thorough review of post event reports, incidence rates, and incident types relating to the event (in the previous two years) was undertaken by Mr. Kent. Documents reviewed include medical, security and general de-brief reports provided by QDA.
3. Brainstorming – QDA representatives were involved in a risk and safety management brainstorming session with Mr. Kent at which Festival hazards and risks were discussed. Feedback and comments have been incorporated into this risk assessment.
4. Consultation – with emergency services, security and medical experts will be conducted by QDA and the written feedback and comments incorporated into further versions of the risk assessment.
5. Research – a thorough review of relevant event guides developed by Government agencies has been undertaken and relevant controls extracted.

Risk Analysis

Risk analysis involves consideration of the sources of risk and *contributing factors* outlined in the risk register, and the likelihood that the indicated consequences can occur on the event. The risk analysis process involves the assignment of a *residual risk* rating for each risk documented in the risk register using the following three steps.

1. **Analyse the inherent risk** – assess the likelihood and consequence of a risk if it were to occur on the event in the absence of controls.
2. **Identify and apply controls** – identify, consider and list the controls that will be put in place on the event to address the risk.
3. **Analyse the residual risk** – reconsider the likelihood and consequence of a risk, taking into account the effectiveness of the controls.

To support the analysis, assessment and evaluation of risk, standardised criteria and rating scales are applied across all risk management activities and areas. The criteria and rating scales and their application to the three risk assessment steps outlined above; have been detailed in the sections following.

LIKELIHOOD: Likelihood table used for analysis:		
A	ALMOST CERTAIN	The risk will occur during the event
B	LIKELY	The risk will probably occur during the event
C	POSSIBLE	The risk might occur during the event
D	UNLIKELY	The risk is not expected to occur on the event
E	RARE	The risk is not known to occur

For each risk identified in the risk register, the **consequence** of the risk occurring in the absence of controls should also be assessed using the Consequence Criteria. *Consequence* refers to the outcome of an event affecting objectives.

This should be quantified based on the most credible (not the worst case) impact of the risk.

CONSEQUENCE CRITERIA

CONSEQUENCE	1. INSIGNIFICANT	2. MINOR	3. MODERATE	4. MAJOR	5. CRITICAL
BRAND AND REPUTATION	<ul style="list-style-type: none"> Minor issues or complaints with event delivery, which are managed as, reported. No media coverage. 	<ul style="list-style-type: none"> Limited issues or complaints with event delivery which may trigger local media attention. 	<ul style="list-style-type: none"> Widespread issues and complaints, significant local media attention or adverse political or reputational impact to QDA. 	<ul style="list-style-type: none"> Major issue and anger with event contributing to statewide media attention or significant adverse political or reputational impact to QDA 	<ul style="list-style-type: none"> Total Outrage or National/International media attention or major adverse Political or reputational impact to QDA
FINANCIAL	<ul style="list-style-type: none"> Loss or damage of <\$10k 	<ul style="list-style-type: none"> Loss or damage between \$10k-\$50k 	<ul style="list-style-type: none"> Loss or damage between \$50k-\$250K 	<ul style="list-style-type: none"> Loss or damage between \$250K - \$1M 	<ul style="list-style-type: none"> Loss or damage of \$1M+
ENVIRONMENTAL	<ul style="list-style-type: none"> Brief pollution with effective and immediate remediation 	<ul style="list-style-type: none"> Minor Harm to natural environment - fauna & flora, soil, water, wildlife etc. 	<ul style="list-style-type: none"> Moderate harm to natural environment - fauna, flora, soil, water, with mid term recovery achievable. 	<ul style="list-style-type: none"> Significant harm to natural environment - fauna, flora, soil, water, with long term recovery achievable. 	<ul style="list-style-type: none"> Long term or permanent damage to the environment contributing to breaches and/or fines.
WORK HEALTH AND SAFETY	<ul style="list-style-type: none"> First aid treatment onsite with no further treatment required E.g. ice packs, band aids, insect bite cream. 	<ul style="list-style-type: none"> Initial first aid treatment onsite with follow up treatment required by GP or medical clinic. E.g. Strains/Sprains, sickness, minor cuts 	<ul style="list-style-type: none"> Moderate injury requiring hospitalization via ER and immediate discharge. E.g. Fractured arm, laceration, broken nose, minor burn 	<ul style="list-style-type: none"> Serious Injury requiring immediate hospitalization as an IN-patient E.g. Amputation, spinal cord injury, severe burns, head injuries, de-gloving. Notifiable to WorkCover NSW 	<ul style="list-style-type: none"> Single or Multiple Fatality, permanent disability/ill health of multiple workers or event patrons. Notifiable to WorkCover NSW

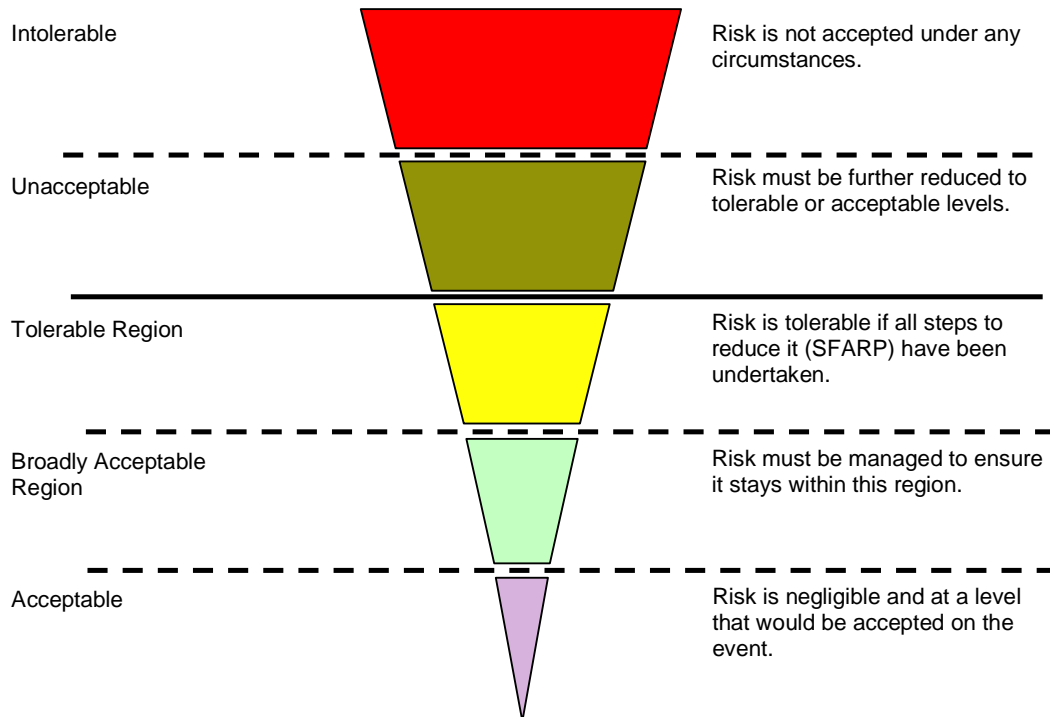
Risk Evaluation

The purpose of risk evaluation is to make decisions, based on the outcomes of risk analysis, about which risks need treatment, and how this will be managed on the event. Risk evaluation involves calculating the *level of risk* found using the risk matrix below. The resulting residual risk level will determine what treatment options are required, and whether or not the risk falls into the acceptable levels indicated in the QDA - SFARP triangle.

RISK LEVEL					
Likelihood	Consequences				
	1 – Insignificant	2 - Minor	3 - Moderate	4 - Major	5 – Critical
A (Almost Certain)	Medium	High	High	Very High	Very High
B (Likely)	Medium	Medium	High	High	Very High
C (Possible)	Low	Medium	High	High	High
D (Unlikely)	Low	Low	Medium	Medium	High
E (Rare)	Very Low	Low	Medium	Medium	High

Risk Treatment

QDA has a legal duty to ensure that risks on the event are eliminated or minimized so far as is reasonably practicable (SFARP). This does not mean that zero risk is the target; risk is an essential component of the festival experience, and present in all operations. QDA actively applies the below pictorial which indicates its risk acceptability and tolerance.

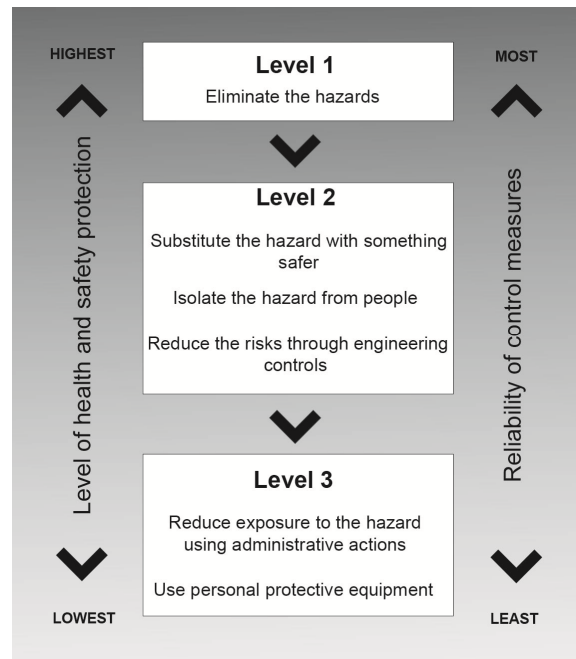


Eliminating or reducing event risks *so far as is reasonably practicable* is based on the duties outlined in the Work Health and Safety Act 2011 (s17 – Management of Risk & s18 – What is reasonably practicable).

Risk Control

Eliminating or reducing risks so far as is reasonably practicable, involves consideration of and weighing up of all relevant matters as indicated in safety legislation. Some event risks can be easily managed by a single control; others are more complex and require the implementation of multiple control measures, and interventions from various agencies.

Risk controls are any process, policy, plan, device, practice or other action that modify risk. Selecting risk controls from the **Hierarchy of Control** is recommended as the core rationale for dealing with hazards that give risk to safety risks. This process is a legal duty outlined in the WHS Act & Regulation 2011.



The controls are to be used in hierarchical, sequential order as indicated above - starting from **Eliminate** as the best approach and then working down the options to PPE. A combination of controls may be used to address any one hazard at one time. For each risk identified in the risk register – risk controls must be succinctly and correctly worded so there is no ambiguity, and it is clear who is responsible for their application.

Monitor and Review

A critical component of the risk management process is monitoring and reviewing the effectiveness of the selected risk controls. Given the dynamic nature of the event and its short duration, ongoing monitoring throughout the event period is required. The following actions will be undertaken.

1. All risks identified in the risk register must be checked off and a master copy retained.
2. An inspection of SIRC and facilities must be undertaken just prior to usage.
3. Where risk owners are identified in the risk assessment, they must be consulted, issued a copy of the document, and a signed copy provided to QDA.
4. Plans and other administrative controls must be reviewed to ensure risk controls have been identified. As the event unfolds these plans should be reviewed.
5. Dynamic risks –such as crowd behaviour and movement must be continuously monitored to ensure that controls are being implemented and they are effective.
6. A mid-event safety meeting is to take place between QDA, Security and Medical to review the effectiveness of response procedures and other controls.
7. A post-event safety meeting is to take place to discuss effectiveness of risk controls and noted in a de-brief report.

Risk Register

A comprehensive risk register has been prepared which identifies risks, rates the risk level before and after controls & recommends controls/risk owners. This register shall be used as a checklist and all risk controls applied as directed. Stakeholders identified in the risk register shall be consulted and issued a copy of the risk assessment. Evidence of application of the risk register shall be retained.

Summary

The development of a risk assessment aligned with ISO 31000:2009 – *Risk Management*, assists QDA with the identification, assessment and treatment of risks.

A risk appetite statement has been included in this document which clearly indicates the QDA perspective on acceptable risk levels, and this underpins all decisions relating to the business. Risk tolerance and/or acceptance is based on reducing risks “so far as is reasonably practicable”, which is a key principle of health and safety legislation. A pictorial has been included in this document to illustrate how this is determined after considering all relevant matters.

This document is to be treated as live. As consultation with stakeholders (internal and external) continues, further versions may be developed and distributed. Stakeholders are instructed to ensure that they work from the latest version at all times.

Various treatment options have been indicated in the document which must be applied; including the following key administrative controls:

- Festival Risk Assessment (this document) – Michael Kent
- Safe Work Method Statements/JSA – Suppliers and Contractors
- Security & Crowd Management Plan – ISEC
- Medical Management Plan – First Care Medical
- Aquatic Rescue Plan – Wollongong First Aid and Rescue
- Emergency Management Plan – Michael Kent

Research

A comprehensive review of legislation, codes, and event safety related material was undertaken by Mr. Kent from which various treatment options have been selected. This material allows QDA to make informed decisions about the management of risk and includes:

- WHS Act 2011
- WHS Regulation 2011
- Liquor Act 2007
- The Protection of the Environment Operations Act 1997
- Waste Wise Event Guide
- Food Authority – Guidelines for Food Businesses at Temporary Events
- SWA Interpretive Guideline – Reasonably Practicable
- EMA Safe and Healthy Mass Gatherings
- WA Guidelines for Concerts and Events
- Managing Major Events – Victoria
- Noise Guide for Local Government
- Code of Practice – Running safer music festivals and events (Vic)
- Code of Practice – How to Manage WHS Risks
- Code of Practice - Safe Design of Structures
- Code of Practice – Construction Work
- Code of Practice – Managing the Work Environment
- Code of Practice – Managing Electrical Risks
- Code of Practice - WHS Consultation, Cooperation and Coordination
- AS/NZS 3745:2010 – Planning for Emergencies in Facilities
- AS/NZS 1170.2:2002 – Wind Actions
- AS/NZS 3760:2010 – In Service inspection and testing of electrical equipment
- National Drowning Report – Royal Life Saving
- Drug Use at UK Music Festivals – Laura Elizabeth Eaton