



Event Safety Advisory Group

Model Event Management Plan Template and Guidance Notes

Event Name	
Event Location	
Event Date	
Organisation	
Document last updated	

1. INTRODUCTION.....	3
2. EVENT MANAGEMENT	3
2.1. PRE-PLANNING.....	3
2.2. EVENT OVERVIEW.....	4
2.3. KEY EVENT MANAGEMENT CONTACTS	4
2.4. KEY EVENT CONTACTS – OTHER	4
2.5. STAFFING.....	5
2.6. ORGANISATIONAL MATRIX	5
2.7. PROGRAMME & PRODUCTION SCHEDULE	6
2.8. RUN SHEET.....	7
3. HEALTH AND SAFETY	8
3.1. YOUR RESPONSIBILITY FOR HEALTH AND SAFETY AT YOUR EVENT	8
3.2. RISK ASSESSMENTS AND MANAGEMENT	8
3.3. RISK ASSESSMENTS – OTHER CONTRACTORS	8
3.4. CROWD MANAGEMENT.....	8
3.5. EMERGENCY PROCEDURES	9
3.6. FIRST AID / MEDICAL COVER	10
3.7. ELECTRICITY.....	10
3.8. FIRE SAFETY AT YOUR EVENT.....	10
3.9. SEVERE WEATHER &EVENT CANCELLATION.....	10
3.10. FUN FAIRS AND INFLATABLE PLAY EQUIPMENT	11
3.11. FIREWORKS	11
3.12. TEMPORARY DEMOUNTABLE STRUCTURES.....	12
4. COMMUNICATIONS	12
4.1. EVENT COMMUNICATIONS – SURROUNDING RESIDENTS.....	12
4.2. EVENT DAY COMMUNICATIONS - AUDIENCE	13
4.3. EVENT DAY COMMUNICATIONS – INTERNAL	13
5. LOST CHILDREN	13
6. LICENSING	14
6.1. PREMISES	14
6.2. ENTERTAINMENT.....	14
7. INSURANCE	14
8. PROVISION OF FOOD	14
9. SITE CONSIDERATIONS	15
9.1. SITE PLAN.....	15
9.2. TOILETS	15
9.3. VEHICLES ON SITE.....	16
9.4. TRAFFIC, TRANSPORT AND PARKING	16
10. ENVIRONMENTAL CONSIDERATIONS.....	17
10.1. WASTE / LITTER	17
10.2. RECYCLING	17

10.3. NOISE	17
10.4. SURFACE PROTECTION AND TREES	17

1. Introduction

The purpose of this document is to provide broad guidance notes for event organisers planning to hold an event on the Isle of Man. The document also provides sections that should be completed to help you develop a detailed EMP (Event Management Plan). You should save a new version of the document and complete all sections in the **blue boxes**; it should only be considered as a guide to what might be included in your plan if the areas are applicable to your event.

This document should not be considered to be an exhaustive list of the hazards or problems that you may face but these are the more common issues faced by organisers however depending upon the nature of your event other areas should be considered and included in your EMP.

Remember to delete all of the guidance text once you have completed your plan

2. Event management

2.1. *Pre-Planning*

The success of any event is always dependent upon adequate pre-planning and it is essential that you allow enough time to help ensure that your event is a success. By addressing the why, what, where, when and who early in your planning process, it will help you to make informed decisions during the event planning process.

- **Why** – it really is worth asking this question at the very beginning, sometimes you may find that the answer is not immediately obvious.
- **What** – you need to decide what it is that you want to be present at your event. Knowing who your target audience is will help you identify what elements should be at your event. Try to put yourself in the shoes of someone from your target audience, what are there interests, what will attract and excite them at your event.
- **Where** – some things that should be considered when deciding on your event venue include: site area, access, community impact, public transport, car parking, ground conditions and existing facilities such as toilets. It is also worth considering your venue in terms of your target audience, is the location accessible to your main target audience?
- **When** – consider your event date in terms of some of the following: other events, day of the week, do your opening times suit your audience and the likely weather conditions at that time of the year.
- **Who** – this is one of the most important points to consider in your pre planning process. Identifying the 'who' will come from your 'why'. Your 'who' may also mean you need to give special consideration for facilities such as young children, teenagers, the elderly or disabled.

Some things take longer than others e.g. applying to close a road takes at least 3 months so starting planning as early as possible and start putting together your pre-event schedule see 2.7

2.2. **Event overview**

Provide a paragraph here that provides an overview of your event.

Please keep in mind that you are trying to provide someone who knows nothing about your event with as much information as possible in a paragraph or two. Include in here the anticipated crowd profiles e.g. expected numbers, age ranges, family event etc.

2.3. **Key event management contacts**

Complete the table below with the names, roles, responsibilities and contact details of the key people involved in organising your event.

Any event should always have one person who is ultimately responsible for all aspects of the event. Depending on the nature and scale of the event a number of other people will have key tasks and responsibilities allocated to them, but these will report to the event manager.

Name	Role	Responsibility	Contact mobile & radio channel (if radios used)
John Smith	Event Manager	Overall responsibility	XXXXXXXXXXXX Radio channel 1
John Smith	Production Manager	All event infrastructure, ordering, delivery timings etc	XXXXXXXXXXXX Radio channel 1
John Smith	Volunteer Coordinator	Volunteer recruitment, training and event day management	XXXXXXXXXXXX Radio channel 3
John Smith	Health & Safety coordinator	Risk assessments, legal compliance, fire points, site inspections	XXXXXXXXXXXX Radio channel 1

2.4. **Key event contacts – other**

Complete the table below with all the other key contacts for your event.

You as the event organiser should start collating the details of all people that will have some involvement with your event. This could be event suppliers, stallholders, emergency contacts etc. This list will help with your event planning and event management on the day. There is nothing worse than the main act not showing up on time and you don't know how to contact them!

Suppliers (marquees, catering etc)				
Organisation	Contact	Service	Contact details	Notes
ABC marquees	John Smith	Marquee supply	Email and mobile	Price confirmed waiting for written quote
Authorities (fire, police, first aid etc)				
Organisation	Contact	Service	Contact details	Notes
Police	John Smith	On call	Email and mobile	Have briefed on event
Fire	John Smith	On call	Email and mobile	Have briefed on event
Artists / Entertainment				
Organisation	Contact	Service	Contact details	Notes
Hot stuff	John Smith	Walkabout Fire Juggler	Email and mobile	Require payment on the day

2.5. *Staffing*

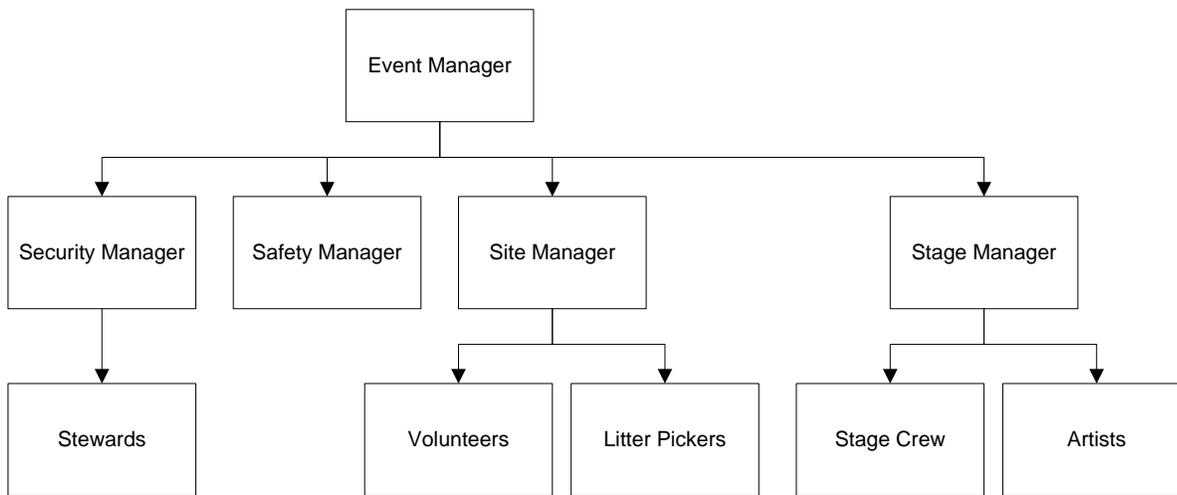
It is important that you think carefully about your event and the level of staffing that will be required. It is easy to underestimate how many staff will be required to plan and successfully run your event. Your risk assessment process will help to ensure that you allocate adequate staff to the event, thus ensuring it is effectively managed and is safe for the public and your staff.

Over and above the key event management contacts you have documented under section 2.3 please list here the other staff that will be required to deliver your event e.g 10 stewards for Mountain Bike Course.

2.6. *Organisational matrix*

Create a simple organisational matrix below.

For smaller events an organisational matrix should still be developed. It helps everyone understand the management structure and who is responsible for what. It also helps with your emergency response planning. If an incident occurs it is important that your staff, the public or emergency services know the chain of command. The below example is an example of a simple structure.



2.7. Programme & production schedule

Complete the production schedules below.

It's important that you produce an event day programme; this not only helps your event management on the day but also allows you to promote your programme to your audience prior and during the event.

A production schedule is also an essential element in successful event management, it ensures tasks are done on time and not forgotten, with so much to think about it is easy to forget things if you don't document each and every task. Regardless of the scale of the event you should document what needs to be done prior, during and after the event to ensure all tasks are carried out in a timely manner. A simple production schedule style that can be used is provided below with an example in each.

Pre-event Production Schedule XXXXXX event							
Date	Task	Start	Finish	Resources/ who	Notes	In Hand	Complete
20/06/2013	Pick-up event signage from sign writer	10am	12 noon	Van + Bill & Ben	Take cheque for payment	Van booked	
Event Day Production Schedule XXXXXX event							
Task	Start	Finish	Resources/ who	Notes	In Hand	Complete	
Stall holders arrive on site	7am	9am	Stalls coordinator - Sam	All vehicles off site by 9.30 and no further vehicle movements	stalls coordinator briefed		

Post Event Production Schedule XXXXXX event

Date	Task	Start	Finish	Resources/ who	Notes	In Hand	Complete
25/06/2009	Return generator	9am	10am	Van + Tom	Make sure cables go back	Tom has been briefed	

2.8. Run sheet

You can use the below table as a template to develop a run sheet for your event.

A run sheet is a useful tool especially when your event has multiply activities occurring across the day at different locations within the event site. For example you may have a stage, arena area and walkabout entertainment. Therefore it's important you programme all the activities in a sensible and logical manner to make the event flow for your audience. For example you could programme an arena act to start shortly after a stage act has finished, this gives time for a stage changeover without a total absence of entertainment to keep your audience entertained. Run sheets can be as detailed as seconds for a stage production, however for smaller outdoor events increments of between 5 and 15 minutes usually works well.

Stage and arena programme for XXXXX event							
Time	Stage programme	Arena programme	Face painter	Walkabout theatre	Bubble blower	Balloon modeller	other
12:00	Mayor opening		Face painter				
12:05							
12:10							
12:15	Changeover	Bike demo		Walkabout 1	Bubble blower		
12:20							
12:25							
12:30	Dance performance					Balloon modeller	
12:35							
12:40							
12:45							
12:50							

12:55							
13:00							

3. Health and safety

3.1. *Your responsibility for health and safety at your event*

The Health and Safety at Work Act 1974 is the primary piece of legislation that covers health and safety at work. Even if you are a small organisation with no employees it is still your responsibility to ensure that your event and any contractors are operating legally and safely.

3.2. *Risk assessments and management*

Include copies of your completed risk assessment.

The risk assessment process is not an option when planning an event, it is an absolute necessity. It is important that a risk assessment is not just something you do because it is a legal requirement; it is the single most important tool to ensure you cover all health, safety and planning aspects of your event. A risk assessment is a 'fluid' document that should be developed early, constantly monitored, adjusted and shared with all your staff.

The first step in the process is to develop a list of risks, do this in a group and brainstorm every identifiable risk. Each identified risk will then be dealt with via the risk assessment. You should make sure that you include the fire risk within this assessment.

3.3. *Risk assessments – other contractors*

Some examples could be a fun fair ride, fire eater or walkabout performers on stilts. Remember that you as the event organiser hold ultimate responsibility for any element of the event you contract in.

Please list here all other contractors associated with your event that you will need to collect copies of their risk assessments.

3.4. *Crowd Management*

3.4.1 Security

Some events will require a level of security. The main purpose of security together with stewarding below is crowd control and it will be your risk assessment that will identify what your security requirements should be, if any. When assessing the security needs of your event give consideration to the following; venue location, date, operating times, target audience, planned attendance numbers, fenced or open site etc.

Document your security plan here.

3.4.2 Stewarding

In addition to your own organisations staffing requirements you will also need to consider stewarding requirements.

Your risk assessment will help you identify your requirements

Stewards require training and briefings to ensure they are fully aware of their duties and responsibilities

You must ensure that you develop a communications plan for all staff, including stewards as they need to understand how they can pass on information or report incidents during the event

Give consideration to venue location, date, operating times, target audience, planned attendance numbers, fenced or open site etc

[Document your stewarding plan here.](#)

3.5. *Emergency procedures*

Prior to the event your risk assessment should help you to identify what could go wrong and how it will be dealt with. An example would be a tent/marquee collapsing – depending on the size and what is inside the emergency procedures will vary. Having a plan on how to deal with situations can prevent the problem becoming an emergency or it can reduce the impact and likelihood of people being injured. Ensure there is a workable method of communicating with the event management team and the emergency services e.g. one to one, mobile phones and/or radios.

Speak to the emergency services at an early stage in planning they will be happy to offer advice and help. The Governments Emergency Planning Officer can also help and a contacting the Event Safety Advisory Group at an early stage will ensure that details of your event are circulated to emergency responders and regulatory bodies on the Island.

If a situation does arise that is putting people at risk or people have been injured the person in control of the event may need to declare an emergency and call the emergency services. Arrangements will need to be in place to keep people away from the emergency and to clear the area safely. When the emergency services arrive they may take control of the emergency situation and assist the event organisers with crowd management and clearing the site. The person in control of the event must liaise with the emergency services and should therefore agree where to meet them when they arrive.

If your event is spread over a large area you should identify an emergency services rendezvous point. Detail where it will be established it should be an easily identified point preferably away separate from the normal traffic flow exiting the event.

If you need to evacuate your event, due to fire etc. identify an area where you will direct people to assemble. Who is going to make that decision? How are you going to communicate the need to evacuate the site and who is going to direct them, this may be a roll for the stewards. You also need to think about how any person with a disability will evacuate in an emergency and include this in your plan.

[Please document here what emergency procedures you will have in place for your event.](#)

3.6. *First aid / medical cover*

The UK's HSE (Health and Safety Executive) Event Safety Guide (HSG195) provides a template that helps you establish your first aid, medical and ambulance requirements if you have not got access to this please contact the Event Safety Advisory Group who has copies of these tables.

Include details and numbers of any medical cover that is being provided. If you have an ambulance on site and it is required to leave ensure you consider the impact of that on the activities on site.

Please document here what first aid and or medical cover you will have at your event.

3.7. *Electricity*

Temporary electrical installations are subject to the same standards and regulations as permanent electrical installations. If your event has an electrical supply included it is a good idea to get it checked by an electrician prior to your event starting.

If you are including electrical supply as part of your event please document the details here.

3.8. *Fire safety at your event*

You must address the area of fire safety for your event. As stated under 3.2 Risk Assessments and Management you need to include the risk of fire in your event risk assessment.

Ensure adequate fire precautions arrangements and equipment are in place for the event. This will include adequate numbers of suitable fire extinguishers as well as means of preventing fires and of evacuating people from the location.

Isle of Man Fire & Rescue can be consulted and will give recommendations. You are advised to involve them at the early stages of your planning.

Please document here how you have addressed the fire risk in your event risk assessment.

3.9. *Severe Weather &Event Cancellation*

Detail any weather that you think may lead to cancellation of event and how this will be managed e.g. during summer – severe thunderstorms etc. Consider the impact of extremes of weather on the people that are likely to attend your event.

Also consider the impact of heavy rain e.g. parking field liable to become marshy/flood and create difficulty for traffic arriving and leaving. Even if the rain has stopped the volume of

traffic may cause problems during the course of the event. Include any mitigation measures to be provided e.g. matting, 4x4 / tractor

It will be a decision made by the operational management team if the weather creates too great a risk for the event to proceed. Include any trigger points that maybe used e.g. wind speeds, visual inspections of certain areas. On the day the person in control of the event must be satisfied that the event can proceed safely.

[Detail here your procedures for severe weather](#)

3.10. Fun fairs and inflatable play equipment

If you plan to have bouncy castles, rides or a fun fair at your event you must carry out checks of documentation to satisfy yourself that the equipment is safe to be used.

Points you may need to address with the operator of inflatable play equipment are:

Are daily checks carried out on the equipment?

When the equipment was last fully inspected?

Will you get full instructions on its SAFE operation?

If it is set it up with the blower unit at 1.2 metres distance will it still fit on my site?

Is the equipment clearly marked as to its limitations of use (max. user height etc.)?

Does the operator have £5 million Public Liability Insurance?

[Please include here any inflatable play equipment you intend to have at your event.](#)

Points you will need to address with the operator are:

Any stand-alone ride or rides that are part of a fun fair must have a Certificate of Mechanical Contrivance, contact health and Safety at Work Inspectorate on 685881for advice

Ask the operator to provide you with a copy of their Annual Inspection/Examination

Check that the operator has £5 million Public Liability Insurance

[Please include here any rides or fun fairs you intend to have at your event.](#)

3.11. Fireworks

If having a large display ensure that the company organising it provide you with their risk assessments and contact the Fire and Rescue Service for advice.

Fireworks can only be set off between certain periods around bonfire night and New Year. If you wish to use fireworks outside of these periods you will need to notify the Fire and Rescue Service at least 21 days in advance and post notices in the newspaper at least 10 days in advance of your display.

Include a plan of allowed viewing areas and any restricted areas.

3.12. *Temporary demountable structures*

The use of temporary demountable structures at events is an area that is broad and complex. For a small event it may simply be some market stalls and a marquee. Larger events and festival may include stages, grandstands, lighting towers, gantries, site offices etc.

Check that all suppliers supply you with a copy of their Public Liability and Employee insurance certificate.s

Also ask suppliers to provide you with relevant risk assessments and method statements relating to the product they are supplying for your event.

Suppliers will provide a signed hand over inspection once the structure is completed to say that it is safe and ready for use.

Any grandstands that are to be erected will need a Certificate of Mechanical Contrivance contact the Health and Safety at Work Inspectorate on 685881 for advice.

You need to consider all other health and safety aspects relating to any temporary structure.

Please provide a detailed list of all temporary structures you plan to bring onto your event site.

4. Communications

The importance of communications when planning and delivering an event is paramount. You need to consider three main areas of communication when developing your event.

1. Communicating with your planning team pre-event to ensure all people are aware of all what is being proposed. It is also essential that you communicate your event plans to the residents and businesses in the surrounding area, the earlier the better.
2. Communications on the day of the event, ensuring that there is a clear communications plan in place and that everyone is familiar with the plan. You also need to make sure that you have the practical tools to make the communication plan work on the day, this could include radios, mobile phones, runners (staff to run errands and messages) and a public address system.
3. Audience communication needs to be considered to make the visitor experience enjoyable and seamless. Elements here could include flyers, site plans, signage, public address system, stage schedules and information points.

4.1. *Event communications – Surrounding residents*

Document here how you are going to communicate your event plans to surrounding residents and businesses

4.2. *Event day communications - Audience*

Document here what plans you have in place for communication with your audience on the day, take note of point 3 above.

4.3. *Event day communications – Internal*

Ensure that under 2.3 Key Event Management Contact you list phone contact details and radio channel details if radios are being used

Ensure that via your organisation matrix (2.6) all people working on your event understand the chain of command and therefore who they will contact should they need to report an incident or pass on information

Your communications plan needs to be developed taking into consider the organisational matrix and the emergency response plan

Document here what plans you have in place for your event day communication for event staff and emergency services, both on site and off site.

5. **Lost children**

You must ensure that you develop a lost children's policy and make all event staff and volunteers familiar with the procedures and policy.

A model to consider when developing your policy is:

Identify arrangements for the 'safe' care of children until such time that they can be reunited with their parent/s or guardian

There should be a clearly advertised point for information on lost children

Try to avoid lost children being left in the care of a sole adult, always ensure that there are at least two adults.

If a lost child is found and reported to one of the event staff a message should be communicated to all event staff as per your communication plan (radio, phone, in person to event control point) that a 'code word' at 'location'. Two staff should then remain with the child at this point for a period of 10 minutes to allow for a possible quick reunification.

If after 10 minutes there has been no reunification then the child will be taken to the designated lost children's point by two members of staff. If possible this point should be adjacent to your event control point or the first aid/medical area.

All incidents need be logged, ensuring all details are recorded.

The child and the parent/s guardian should not be reunited until a match has been established. For example if a parent comes to the lost children's point claiming they have a lost child they must provide a signature and identification along with a description of their child, this could include age, clothing, hair colour, height etc.

If there is any reluctance from the child to go with the adult then you should inform the police.

Once a lost child incident has been resolved inform all staff that the 'code' has been resolved and complete the report and log.

Please document here what your lost children's policy and procedures are.

6. Licensing

6.1. *Premises*

If you intend to serve alcohol you will need to apply for a licence.

If you are not serving alcohol but there is a pub nearby consider whether you think this will affect your event? Is it likely that people will bring alcohol to the event and how will you manage this?

Provide detail of any licensing conditions imposed

6.2. *Entertainment*

Please provide details on any recorded or live music you plan for your event.

7. Insurance

It is good practice for event organisers to hold Public Liability Insurance to the value of £5 million. You must also ensure that any contractors that you are engaging also hold Public Liability insurance and any other appropriate insurance, i.e. Product Liability, Employee insurance.

You will also need to ensure that you hold copies of all contractors relevant insurance certificates.

Include details of your Public Liability insurance to the minimum value of £5 million and include a copy of the certificate in your plan.

8. Provision of food

Please note that all details of any catering concessions should be listed under 2.4 Key Event Contacts – Other. You should check that the DEFA, Environment Division, Food Safety Team has been contacted regarding outside caterers registration contact 685894 for advice.

Document details here of any catering and or provision of food you plan to provide at your event.

9. Site considerations

9.1. *Site Plan*

Preparing a site plan is beneficial for ALL static events and should show the following locations where applicable:

- Access and exit points for contractors, vehicles and pedestrians
- Emergency exits and exit routes
- Emergency services access and egress points and routes through the site
- Toilets
- Water points
- Food and drink locations
- Car parking areas
- First aid/medical provision points/lost children
- Information point

For small events a clearly readable, non-scale plan will suffice, site plans should be divided into grid squares, marked alphabetically, from the left on the horizontal and numerically from the bottom on the vertical.

The size of the squares should be relative to the site size and divide the site into equal areas that be easily identified in the event of incident.

Site plans will be drawn with the top marked as towards magnetic North i.e. in the event of an incident happening in the area containing the marquee it can be given as a map reference B2.

[Include a copy of your site plan](#)

9.2. *Toilets*

You should provide adequate toilets facilities for you event attendees, staff and contractors.

Be conscious of the need for facilities for disabled persons attending.

If you decide to provide portable toilets make arrangements for them to be checked during your event to make sure that they are replenished with toilet tissue and soap etc. and they may need cleaning during your event.

[Please outline here your planned toilet provisions for your event based on your expected numbers and gender split.](#)

For events with a gate opening time of 6 hours or more		For events with a gate opening time of less than 6 hours duration	
Female	Male	Female	Male

1 toilet per 100 females	1 toilet per 500 males + 1 urinal per 150 males	1 toilet per 120 females	1 toilet per 600 males + 1 urinal per 175 males
--------------------------	---	--------------------------	---

9.3. ***Vehicles on site***

Points to consider when developing your vehicles on site policy:

What vehicles will need to access the site for your event?

What vehicles will need to remain onsite throughout your event and which will be off-site before the event opens?

Are there any vehicles that will need to move on the site during your event? It is recommended that you try to avoid the need for this, however if it is needed you should have a rigid procedure in place and ensure that all people involved in your event are fully briefed on the procedure to be used.

On site create a plan for vehicle movements allowing sufficient space for manoeuvring vehicles. Wherever possible separate pedestrians from vehicles and create distinct marked vehicle routes. Avoid vehicle movements through the event site during the event.

What if you have to cancel your event or the event has a fixed end time and everyone wants to leave at the same time? Do you need to do anything different?

Please outline here what you vehicle policy is for you event site.

9.4. ***Traffic, transport and parking***

Many smaller community events will have limited impact on traffic and parking, however it is still important that you give this consideration when planning your event. Larger events can have significant impacts on local traffic and transport and will require risk assessments and plans dealing specifically with traffic and transport. It is important that through your risk assessment you consider traffic, transport and parking no matter what scale your event is.

The Police and DOI Highways will be happy to offer advice on parking arrangements on or off road even if you do not require parking suspensions or road closures.

Points to consider when developing your plans:

How will your audience travel to your event?

Consider public transport and how this could be promoted to your audience as a way to get to your event.

Are you proposing any road closures? If so contact DoI Highways, be aware that road closures require a minimum of 3 months lead time and in all cases the more notice provided the better.

Parking suspensions can be applied for from DoI Highways Division 686930.

Outline any traffic, transport or parking plans you have in place for your event.

10. Environmental considerations

It has never been more important for event organisers to put in place plans to minimise their impact on the environment.

10.1. *Waste / Litter*

The more people that attend your event the more litter that will be produced and you will have to deal with during and after your event. If you have a number of litter bins around the site have you decided who will empty these and how is the litter going to be collected from site and disposed of after your event.

Document your plans for litter here

10.2. *Recycling*

One idea may be for your event to have a recycling plan in place and that it is carried out. For small community events this could be as simple as labelling some bins to encourage people to separate their waste into a range of categories and then making sure that these are taken to the recycling bins located around the Island.

Document your recycling plans for your event here

10.3. *Noise*

Most events will have residential areas in close proximity and it is therefore essential that you are aware of any event elements that may cause noise issues. The most obvious elements that have the potential to cause noise pollution issues are live music stages, fun fairs and public address systems.

Residents should be provided with an event day contact from your organisation that can be contacted on the day should they wish to raise a noise complaint

Please document what elements of your event have the potential to cause noise nuisance and what plans you have in place to mitigate this.

10.4. *Surface protection and trees*

If your event requires a large amount of equipment to come onto the site you may need to consider installing track way to protect the ground. Tree root compaction can cause the premature death of trees due to compaction of soil around roots, restricting their ability to absorb oxygen from the soil.

Please document here your plans for minimising damage to any soft ground and trees.