


Appendix H Flood Management Plan

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INTRODUCTION

This report details the work undertaken by Diynamic Festival London to identify solutions to enhance public flood safety and maintain a robust site infrastructure that can remain resilient to substantial flood damage or adverse weather.

The event management team's (EMT) aim is that staff and users of the event site at flood risk are appropriately prepared to respond to a potential flooding emergency. A prioritisation methodology has been developed which targets action on the event site that has a significant likelihood of flooding and where the consequences of flooding in terms of risk to life are likely to be higher.

The EMT has produced a communication strategy that outlines how different agencies can work together to communicate key messages about flood emergency planning. As a result, the EMT has established a detailed action plan setting out the specific activities that will be undertaken under each scenario. The action plan will ensure that staff and users of the site at risk of flooding is appropriately prepared to respond to a potential flooding emergency during **Diynamic Festival**. These factors have been detailed below.

RISK TO LIFE

UK Government guidance on assessing the risk to life from flooding (Defra, 2008) states that the risk to life due to flooding is a function of flood hazard, area vulnerability and people vulnerability. Camping sites score highly in terms of their hazard and vulnerability under all three measures.

FLOOD HAZARD

Flood hazard is a combination of flood depth, flood velocity and the presence of debris. It is the flood conditions in which people are likely to be knocked off their feet by floodwaters with the consequential possibility of drowning. Flood hazard is greatest when waterways surge conditions, especially where flood defences are breached rather than overtopped. Flood hazard is also high in 'rapid response catchments' (where the time between rain falling and peak river flows is very short leading to a flood hazard that is extreme or very extreme) where the fast onset of flooding leads to high flood depths, velocities and debris-laden flood waters.

AREA VULNERABILITY

Area vulnerability describes the characteristics of an area of the floodplain that affects the chance of being exposed to the flood hazard. It includes the nature of the built environment (the fabric and use of buildings in the area) and the speed of the onset of flooding (which is usually dictated by the shape of the catchment and source of flooding).

PEOPLE VULNERABILITY

People vulnerability describes the characteristics of the people affected by flooding and their ability to respond to ensure their own safety and that of their dependents during a flood. Users might require more time for self-evacuation or be dependent upon assisted evacuation/rescue. There is also an inherent vulnerability to visitors to an area, as they are not familiar with the local geography, such as places of higher ground or clear escape routes.

For ease of use we have clearly identified items as **Must**, **Should** and **Could**. Anything that is identified as **Must** is essential in all flood management plans. Items shown as **Should** or **Could** are optional and their inclusion should be based on the flood risk to which the flood management plan is intended to be a response. These items may be required where the flood risk is high, such as heavy rainfall or standing water developments in high probability flood zones.

The FMP will form part of a suite of plans that link Health & Safety at Work and Business Continuity.

SITUATION – **MUST**

We will provide background information useful to site users and the emergency services responding to a flood event at the site. The information will include the purpose of the site, the usual and maximum numbers of people on the site, key locations in the site such as facilities, parking, production offices, accommodation, etc. The plans will also provide information on infrastructure and utilities within the site, other hazards and normal access and egress routes.

RISK ASSESSMENT – SHOULD

Risk is a combination of impact and probability. This site is subject to a Risk Assessment (RA). The severity of the impact of flooding should be described to provide a useful understanding of the situation should flooding occur.

CONSIDERATIONS – SHOULD

Further to the flood risk assessment, a site risk assessment will be undertaken to identify the hazards that could present during a flood and/or evacuation, assess the risks and state reasonable precautions that could be taken. When undertaking this risk assessment considerations will be made for disabled or vulnerable people and any limitations/hazards that could compromise the plans.

PREVENTION, PROTECTION & PREPERATION – SHOULD

The risk assessment will identify a number of actions that can be taken to prevent flooding, protect against flooding and prepare for flooding. The mitigating actions should be assessed against cost and benefit and implemented where appropriate. The actions will also be documented in the action plan.

DEPLOYING FLOOD BARRIERS / FLOOD PROTECTION – SHOULD

A range of flood barriers and defences will be deployed in the situation of serious flooding. This will consist of temporary flood barriers or flood protection actions that need to be performed in advance of flooding to minimize the impact of the site. Details of exactly what actions need to be done, who is responsible for carrying out these actions, their nominated deputies, and what training is required etc.

FLOOD WARNINGS – MUST

The Environment Agency (EA) and Met Office provide flood warnings up to five days in advance. These warnings can be coupled with specific on-site systems to provide a useful system of escalation tied to specific actions.

FLOOD FORECASTING AND WARNING SERVICES

The EA operate a Flood Forecasting and Warning Service in areas at risk of flooding from rivers or the sea, which relies on direct measurement of rainfall, river levels, tide levels, in-house predictive models, rainfall radar data and information from the Met Office. This service operates 24 hours a day. 365 days a year.

FLOOD WARNINGS DIRECT (FWD)

Flood Warnings Direct is a free service operated by the EA that provides flood warnings direct to you by telephone, mobile, email, SMS text message and fax. Flood line can be contacted by calling 0845 988 1188.

ESTIMATED FLOOD WARNING TIME

It is important to determine the estimated lead time between the EA sending out the warning and the time flooding might occur and depending on the cause/type of flooding and the estimated duration of the flood.

ALARMS

An alarm will be raised when a specific warning or trigger is received. This alarm will be obvious to those using the site and they should be clear on how to respond. Alarms will also consider those with sensory or mobility impairment.

LOW LYING AREAS DESIGNED TO FLOOD

The site may include areas, which are designed to flood. These areas must contain signs highlighting the susceptibility to flooding and contain clearly signed routes to higher land. All site users will be made aware of this risk.

ACTION ON ALARM BEING RAISED / WARNINGS BEEN RECEIVED – MUST

Please see ESMP.

MONITORING – COULD

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Floods are difficult to predict by their nature and it will be worth putting systems in place to monitor flood water levels between flood warnings and to reduce the risk of being caught unaware.

SITE EVACUATION PROCEDURES & ROUTES – MUST

We have identified in advance of flooding which individuals can be sent off-site, if safe to do so. We will allow time for this to occur before any routes become affected by flooding. Evacuation procedures have been developed which identify when and how evacuation takes place, signed routes will be required, (including the maintenance of signs and keeping evacuation routes clear). Considerations will be given to the road network around the site, especially if these are more likely to flood first and therefore affect evacuation time.

The evacuation procedures will include options for the evacuation of all people on site, (including those with restricted mobility). It should be assumed that visitors would not have local knowledge and will need to be guided to a safe route/location. We will also keep in mind the need to have evacuation plans for any pets and livestock.

SHELTER & WELFARE

If an evacuation is necessary, we will consider the location to which the site will be evacuated. It can be assumed that it will be possibly cold, raining and dark. The shelter and welfare of those evacuated from the site needs to be considered and it must be assumed that support from emergency services may not be immediately forthcoming due to other prevailing situations.

SAFE REFUGE

Any no notice flooding events following breaches in defences or surface water flooding will require a safe refuge such that all occupants of event sites can take immediate action to keep themselves safe without relying on intervention from outside agencies. These details will be recorded and be part of the training for the EFP.

If the decision is made that nominated individuals/critical workers are to remain safe onsite, we will ensure risk assessments have been completed. We have included details of how many people can be safely accommodated in this manner and the resources/equipment available to sustain them as necessary for the duration. Depending on the cause of flooding, people may need to stay for many hours. We will consider their communication with management, emergency services and their families. – We have not assumed that the emergency services will rescue people from the event site. The focus of any response from the emergency services will be to those who are immediately vulnerable and at most risk. It is probable that the emergency services will be stretched thin.

COMMAND & CONTROL

Any staff on the event site must be clear on their roles and responsibilities in response to flood warnings and flooding. The Event Safety Advisor (ESA) will be in control of the site response to ensure all activities are coordinated. Plans are drawn up to reflect action on a 24/7 basis. If immediate flooding is forecast and the opportunity to safely evacuate is gone, pre-emptive flood protection tasks must be implemented (if time allows) and the formal instruction given to move to the area of safe refuge. Please see ESMP for Roles & Responsibilities.

SITE RE-OCCUPATION – SHOULD

It must be born in mind that before re-occupation occurs that the recovery of the area affected will be coordinated by the local authority supported by various agencies. They may well be environmental hazards, loss of utilities and other such issues, which may have to be rectified before people are allowed back to the event site. We will therefore consider a wide range of measures in developing our Recovery Plan.

BRIEFING/TRAINING/EXERCISING – MUST

All personnel who work or are resident on the site must be made aware of this plan and briefed/trained accordingly. Exercising of the plan and personnel is essential. Health & Safety records will be kept listing which personnel have been trained and exercised. The plan will form part of the Health & Safety at Work risk register maintained by the organisation.

DOCUMENT CONTROL – SHOULD

The plan will be owned, maintained and updated. All users will be reminded periodically to provide details of any changes that may materially affect the plan in any way. Details of changes should be recorded and the documentation updated. This should be completed either through a re-issue of the plan or via an amendments record. The plan will be reviewed annually for each individual event, or more regularly if required, for example, as a result of lessons identified after an activation event or exercise, following major changes of personnel or policy, or following any change to the flood risk or warning process. Documentation control procedures should be in place to ensure that only the current version of the plan is in circulation.

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