Developing Emergency Planning

Step-by-Step Guidelines for Museums

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Disclaimer

Whilst the author has tried to ensure this step-by-step guide provides useful information it should be understood that it is provided for guidance only. The individual author will not accept liability for losses, which might arise, either directly or indirectly, from the use of this guide.

Background

This document aims to provide a step-by-step document, to guide museums through all stages of writing and delivering emergency planning, providing useful links and examples. It will allow the user to tailor a plan to suit their specific circumstances and requirements.

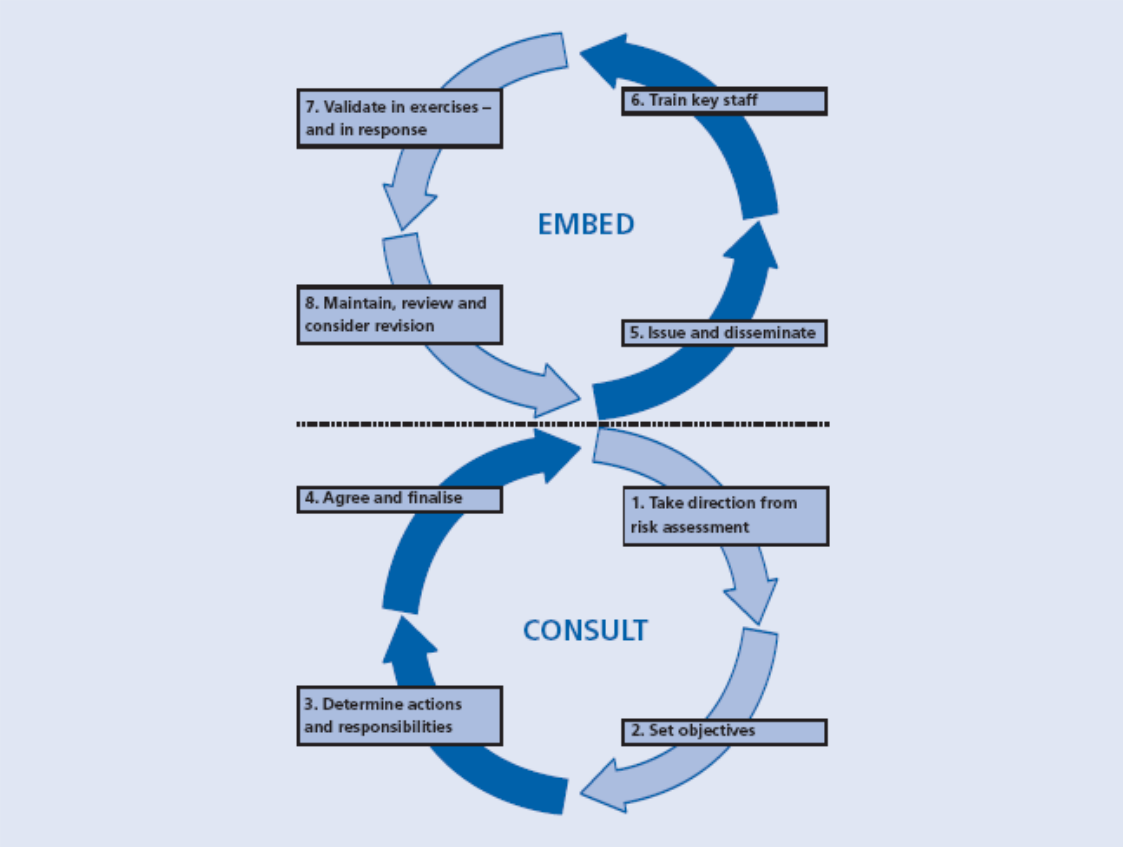
The step-by-step guide will utilise pre-existing information from the public sector and apply it to the museum context, with the emphasis on prevention rather than response. The guide aims to look beyond producing a template plan and to look holistically at emergency planning and management.

Emergency planning is a systematic and ongoing process, preparing organisations to respond to emergencies. It evolves as lessons are learnt and circumstances change. The critical thing to remember is that developing an emergency plan is a cycle and it will be developed year on year, when new risks or threats present themselves or as circumstances change.

For the purpose of this guide an emergency management cycle is going to be used as this will provide a clear structure on which to base emergency planning. For the purpose of this guide a figure of 8 emergency planning cycle will be used, the advantage of this cycle is that it provides clear and explicit stages for developing emergency planning.

Emergency Planning Cycle

This cycle is used within the public sector and provides a two stage cyclical approach to developing emergency management. The cycle of emergency planning is split into two sections. The lower circle outlines the plan preparation process and the upper circle the life of the plan once it is issued and circulated [CCA 2004: 5.47]. This cycle allows the person (s) developing emergency planning to consider all aspects of emergency planning and to think beyond just writing a plan.



CCA 2004 Emergency Preparedness Fig 5.1

Stage 1: CONSULT

1. Take direction from the risk assessment
2. Set objectives
3. Determine actions and responsibilities
4. Agree and finalise

Stage 2: EMBED

5. Issue and disseminate
6. Train key staff
7. Validate in exercises and response
8. Maintain review and consider revision

Stage 1: Consult

Lower Section of Emergency Planning Cycle

The first section of this step-by-step guide will consider the following 4 elements

Take direction from the risk assessment
Set objectives
Determine actions and responsibilities
Agree and finalise

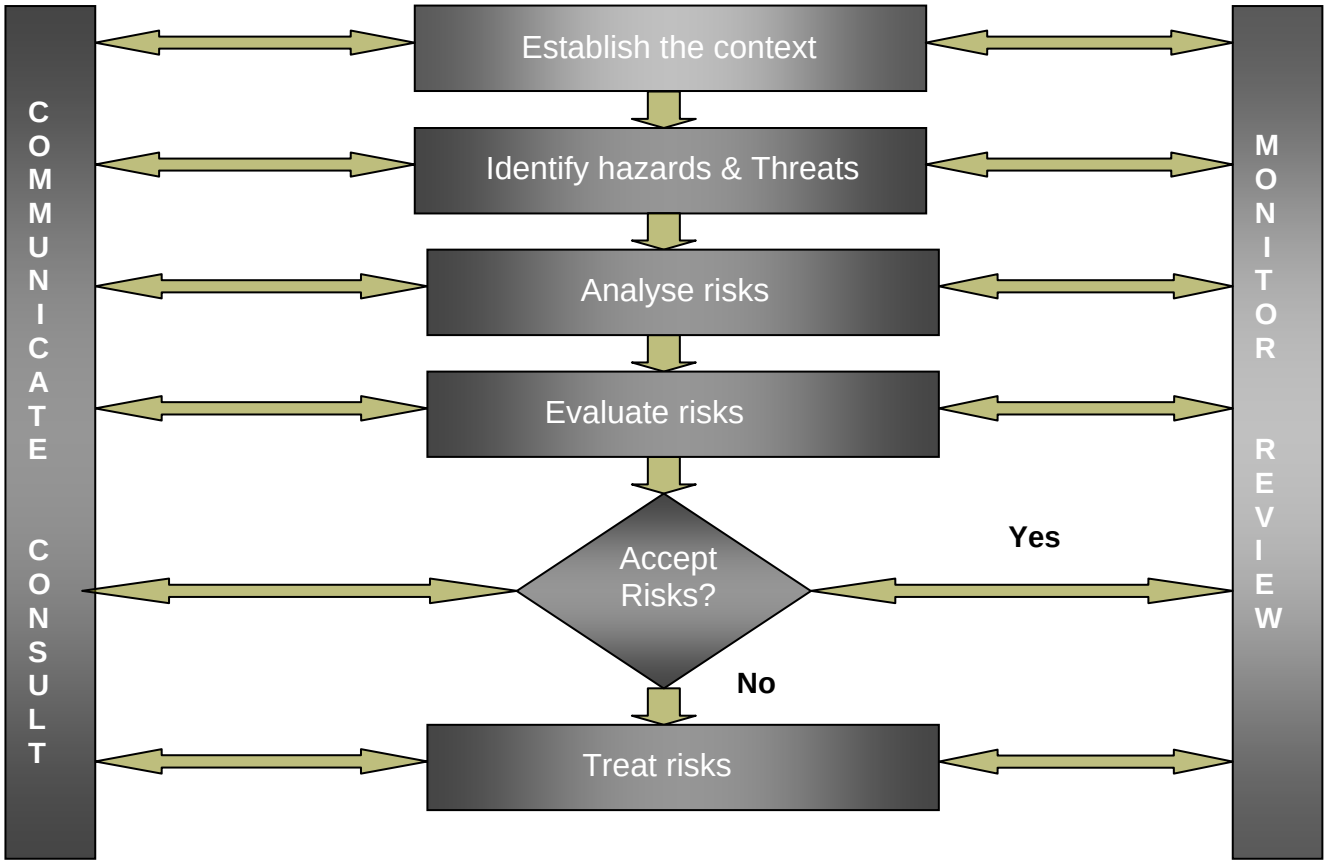
1. Take direction from the risk assessment

It is usual to view emergency planning as part of a cycle of activities beginning with establishing the risk. You need to define and understand the risks that face your museum (s). This is important; as it will help determine what the priorities are for developing your emergency plans. You must also include reviews and revisions of the risk and when you do this will re-start the whole emergency planning cycle.

The risk assessment diagram below (Figure 1) provides the "bigger picture" for considering risk and applying it to emergency planning and management. This risk assessment process provides an overview of the entire risk process. As part of the risk management process you could use Birmingham Museum Art Gallery individual risk assessment/matrix, which provides a useful format to consider the risks your museum maybe exposed to.

Each element of the risk assessment diagram below will be discussed and examples provided. It will also show where in the process you could begin to use the BMAG Risk Assessment/Matrix.

Figure 1: Overview Risk Assessment



Massey, D (2010) Scotland Session ICON

1. Establish Context

When beginning to look at risk it is important to consider the context in which the risk is being considered.

It is useful to explain the context in which you are setting the risk assessment by providing a brief explanation of the venue or venues in which the risk assessment will cover.

It is useful to indicate any exclusions and the rationale for these exclusions

This will help set the context in which you are setting your work

2. Identify threats and hazards

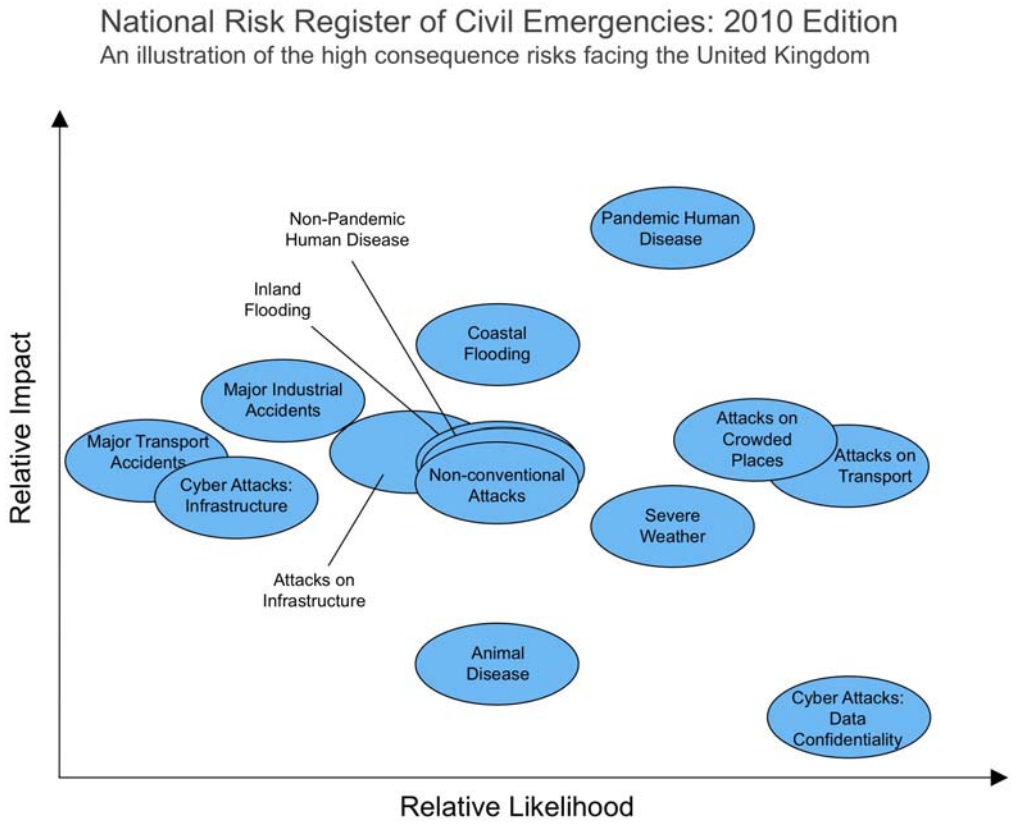
When identifying your threats and hazards you should use both internal and external sources of information, considering both intrinsic and extrinsic risks. When looking at external risks that may pose a threat to your museum there is a plethora of information that exists that you can begin to use.

Examples of External Information

National Risk Register (NRR)

For the very big picture you can refer to the National Risk Register. This is where the government assess the risks that the United Kingdom could be exposed to over the next five years. The risks are detailed in a visual matrix – see Figure 2: Visual matrix.

Figure 2: visual matrix



Cabinet office: National risk Register 2010

Regional and Local Risk Assessments

The regional and local risk assessments take the lead from the national level risk assessment, but reflect the nature of the specific region/area. As part of UK legislation each region has to produce community risk registers that look at the specific risk in their region.

To determine your level of risk you can use your local community risk register – refer to the website - www.direct.gov.uk.

For example for Birmingham you can refer to Risk Register: Birmingham Local Risk Register (www.westmidlandsprepared.gov.uk/local-risks). This is just one example and a risk register will exist for your county.

This risk register provides information on what Birmingham sees as the major risks in its area and these are very much tailored to suit the characteristics of this region. (See Figure 3: Section of Risk Assessment) This community risk register considers the following risks:

- Industrial action and environmental pollution
- Transport Accidents
- Severe Weather
- Structural
- Human Health
- Animal Health
- Public Protest
- Industrial Technical Failure
- International Events
- Industrial Action
- Terrorism and Malicious Threat

You can use your community risk register to assist you when considering the risks your museum may be exposed. It will also allow you to consider how the museum could be impacted by the community risks identified.

Figure 3: Example: Section of West Midlands Risk Register:

West Midlands Prepared
w.westmidlandsprepared.gov.uk

WEST MIDLANDS CONURBATION RESILIENCE FORUM
COMMUNITY RISK REGISTER

TYPE OF RISK	RISK CATEGORIES (AND SUB-CATEGORIES)	OUTCOME DESCRIPTION	LIKELIHOOD	IMPACT	RISK RATING
INDUSTRIAL ACCIDENTS AND ENVIRONMENTAL POLLUTION					
WMC / H1	Fire or explosion at a gas terminal as well as LPG, LNG, and other gas onshore feedstock pipeline and flammable gas storage sites.	Up to 3km around site causing up to 500 fatalities and up to 1500 casualties. Gas terminal event likely to be of short duration once feed lines are isolated; event at a storage site could last for days if the explosion damaged control equipment.	Low	Moderate	Medium
WMC / H2	Fire or explosion at an onshore ethylene gas pipeline.	Up to 3km around site causing up to 500 fatalities and up to 1500 casualties.	Low	Moderate	Medium
WMC / HL1	Fire or explosion at a gas terminal or involving a gas pipeline.	Up to 3km around site causing up to 10 fatalities and 100 casualties.	Low	Moderate	Medium
WMC / H4	Fire or explosion at a fuel distribution site or a site storing flammable and/or toxic liquids in atmospheric pressure storage tanks.	Up to 3km around site causing up to 150 fatalities and up to 2000 casualties. Explosions would cause primarily crush/cuts & bruises type injuries, as well as burns – fires would cause predominantly burn-type injuries.	Low	Moderate	Medium
WMC / H5	Fire or explosion at an onshore fuel pipeline.	Up to 1km around site causing up to 100 fatalities and up to 500 casualties.	Low	Moderate	Medium
WMC / H7	Explosion at a high pressure natural gas pipeline.	Local to site causing up to 200 fatalities and up to 200 casualties.	Low	Moderate	Medium
WMC / H8	Very large toxic chemical release.	Up to 10km from site causing up to 2000 fatalities and up to 10,000 casualties. Toxic release could be due to loss of containment of chlorine – or of a number of other chemicals, e.g. anhydrous hydrofluoric acid, refrigerated ammonia, sulphur di-oxide (or tri-oxide) gas.	Low	Significant	Medium
WMC / H9	Large toxic chemical release.	Up to 3km from site of toxic chemical release causing up to 50 fatalities and up to 2000 casualties.	Medium Low	Moderate	Medium

You can also use the environment agency website to check your specific level of risk to flooding (www.environment-agency.gov.uk). They provide flood maps, which indicate the potential for flooding in your area. However do not just consider flooding, consider all possible hydro-metrological events and more generally about the impact of water ingress.

3. Analyse Risk

When you have considered all the potential risks you maybe exposed to, all the risks identified should be analysed.

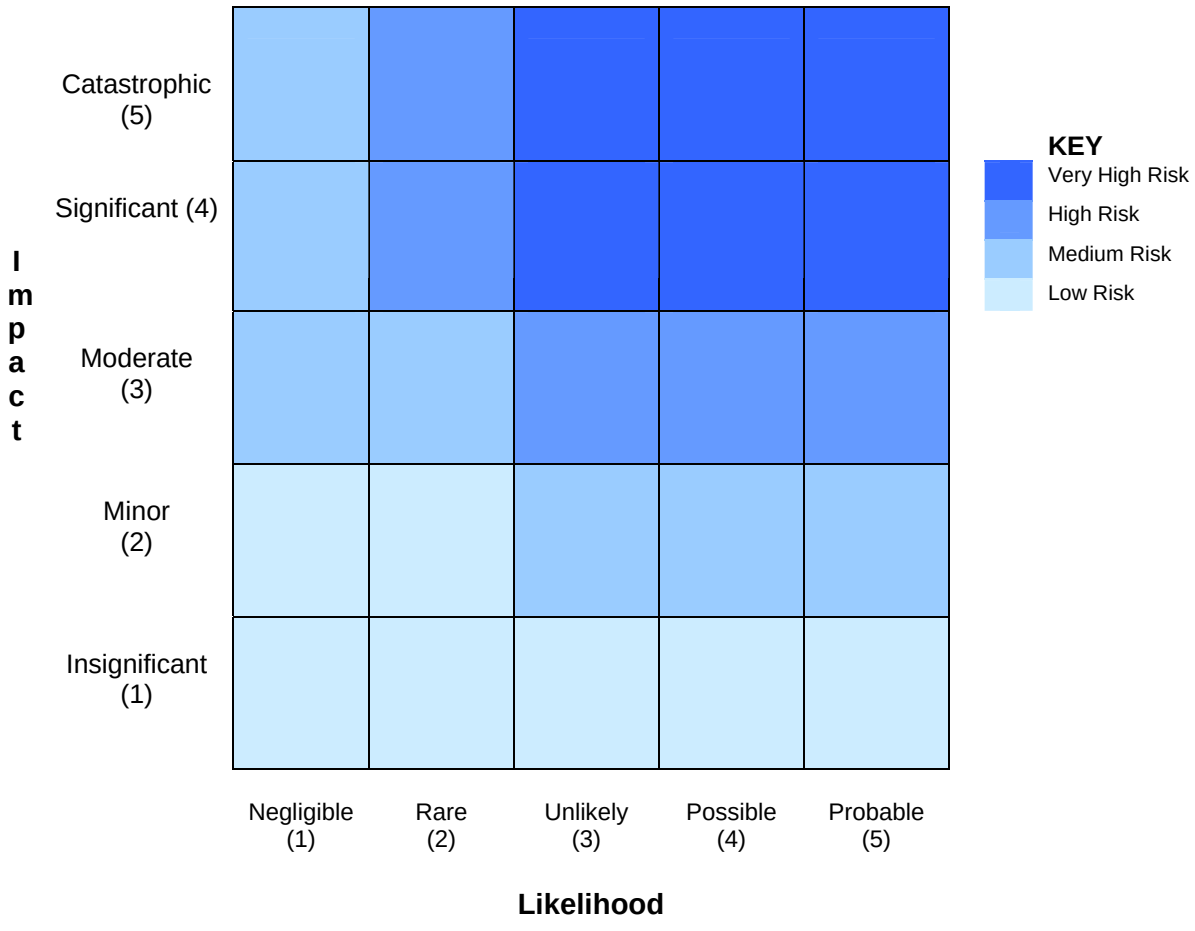
BMAG Risk Assessment/Matrix could be used at this point (Refer to Section 2 of the matrix) Section 2 asks you to complete and consider the following sections:

- Consider the threat
- Use historic evidence
- Consider the impact
- Consider the mitigation strategies (control measures) in place

This matrix when completed in full it will allow you to analyse the risk in relation to your museum by considering the likely impact and the current or existing controls in place.

4. Evaluate risk

All the risks identified should be evaluated; BMAG Risk Assessment/Matrix could be used at this point (Refer to Section 3 of the matrix)



The final stage is to decide whether the risk should be accepted or treated. The risks that can be treated should be. Those risks that cannot be treated should be monitored and reviewed and those that cannot be treated should be planned for and further mitigation strategies introduced.

Risk reduction measures should be considered and incorporated. Risk reduction/mitigation measures may include the introduction/development of:

- Maintenance regimes redeveloped or introduced
- Training
- Review of operational processes such as building security
- Separation of high risk elements
- Changes to spatial planning

The aim of the risk assessment work is to highlight areas of possible weaknesses in relation to your museum. If you have already carried out risk assessments and have an emergency plan in place the risk assessments will provide an indication of where further work is required; it may reveal the needs for new plans or procedures.

The risk assessment process is a continuous process and any change with the risk assessment must feed back in to the emergency planning.

Other useful links for RISK

HSE – Risk Assessment - www.hse.gov.uk/risk

Institute of Risk Management (IRM) - www.theirm.org

2. Set Objectives

The risk assessment work then needs to be translated into a series of objectives. These objectives will form the basis of your emergency planning.

The first step is to define emergency management in your organisation. The examples provided should be tailored to suit your own museum.

Example of defining emergency management:

An emergency is defined as an imminent or actual event that threatens people, property or the environment, which requires a coordinated and rapid response. All staff are responsible for the safety of the collections and damage to the collections can often be prevented or mitigated through vigilance of the staff. The emergency plan is a document that describes the steps a museum takes to prepare for and minimise the risk of an emergency and, should an emergency occur, the procedures the museum will follow to respond to the emergency and to recover from it.

Example of emergency management objectives:

Objective 1: To anticipate and assess the potential risks and introduce measures to reduce those risks

Objective 2: For those risks that cannot be eliminated to prepare for those risks and the potential effects should an emergency occur

Objective 3: Clearly define mitigation methods for risks that cannot be eliminated

Objective 4: To ensure that museum staff are informed and trained in emergency procedures

Objective 5: To ensure that the museum introduces feedback mechanisms to evaluate the effectiveness of the emergency plan

The final stage in setting your objectives is to circulate them widely and have your objectives signed off by all those involved in emergency planning and management.

3. Action and Responsibilities

If an appropriate forum does not exist for discussing emergency management, one should be sought that involves a wide range of individuals from across your organisation.

You could use an existing forum/series of meetings to discuss emergency planning, if this is more appropriate.

You need to set up an appropriate team (s) to deliver emergency management, including setting up a structure of management.

With the emergency planning team you must pull together an action plan together based on the project objectives you previously identified.

Example*:* Objective/Action Plan

Objective	**Action**	**Task Allocated**
Objective 4: To ensure that museum staff are informed and trained in emergency procedures,	▪ Work with the emergency planning team to define key elements of the training ▪ Define which staff need to be trained ▪ Define what type of training is required and what level to set the training ▪ Develop a training plan	

Responsibilities should be determined and assigned to individuals for action. When allocating actions you can try to tie into existing roles, responsibilities and structures. So for this objective you could work with or assign parts of this task to staff in your museum that carry out training already, for example those in education.

When defining responsibilities it maybe useful at this stage to carry out an assessment of staffs current roles and apply them to similar roles within the emergency planning and management team.

4. Agree and Finalise

All risks, objectives, actions and responsibilities should be agreed and finalised

As the figure of 8 indicates this is a cycle and stage 1-4 must be reviewed on an ongoing basis

Be pragmatic – if you review the process regularly you do not have to try and get everything right first time round. It will slowly build up to be very comprehensive

Ensure there is consultation – start internally!

Writing the Emergency Plans

Emergency Plans

There are two types of plan: Generic and Specific

Generic plans should be seen as the core plans and a plan that can be used in a variety of emergency scenarios.

Specific plans are more detailed plans and procedures for a particular emergency and go beyond what's contained in the generic plan. The specific plan can be hazard specific or location specific.

When you first start to write an emergency plan, start with writing a generic plan. As you being to build up your risk profile and become more attune to the risks you can start to develop specific plans that focus on specific emergencies, such as a plan for inland flooding or fire.

Writing the plan

The next step is to construct/write the emergency plan. You will be able to use all of the information you have collated through Stage 1 and add to this additional information that would further assist you in an emergency.

Below is a basic outline of what could be included in an emergency plan. The main body of the plan should be concise and focused on the control, co-ordination and action to be taken in an emergency, basically who, when and what.

Emergency plan content/framework

Section	Content Required
Introduction	Emergency plan purpose (aims) Plan design and steps in the plan Emergency plan objectives Conditions in which the plan is activate
Risk Profile	Background to risk management - external and internal risks Introduction to the museum, characteristics, resources and the hazards/risks its exposed to
Control and Coordination	Roles and responsibilities Management structure (personnel arrangements) for response Include detailed information on the museum (floor plans, layout etc.) You also need to develop plans for controlling and mitigating the effects of an emergency such as: Media and communication plans Information management plans/documentation Response plans – refer to appendix for contact lists, equipments lists, and procurement process etc. Recovery plans – developed to suit specific to your museum and collection Standing down procedures
Activation and action	Explain how you activate the teams your identified in the roles and

	responsibilities You need to consider when an emergency has occurred so you need to know which plan to activate – generic or specific plan. (Consider why, when and by whom the plan will be activated) You may find that you activate only a specific section of the plan – for example the recovery plan for a section of the collection.
Appendices	Call out lists Resource lists Grab or snatch lists Risk Assessment Other key information

Lawson 2008 adapted CCA 2004

The whole process is ongoing and each stage of the plan should be reviewed as it is developed. You need to ensure that you circulate your draft plan to all those involved in emergency planning and management.

The plan needs to be signed off by all those involved. Once you have sign off you then need to consider how you start to communicate the plan internally and externally. This is the point at which you start to use the upper section of the emergency planning cycle.

Stage 2: Embed

Upper Section of Emergency Planning Cycle

The second section of this step-by-step guide will consider the following 4 elements

Issue and disseminate
Train key staff
Validate in exercises and response
Maintain review and consider revision

5. Issue and disseminate

Once the plan is signed off you need to then start to issue and disseminate information about the emergency management process and the plan itself. This is all about communication, internally and externally to all stakeholders.

You need to start by considering “who needs to know” and “what do they need to know”

Start basic and break down the information contained in the emergency plan into manageable chunks to disseminate it. Sections may include:

- Risk Assessment/Risk Management Information
- Plan objectives
- Roles and Responsibilities
- Management Structure

6. Train Key Staff

When you have disseminated information on the emergency plan and the planning process, you can begin to develop a training plan. The aim of the training is to give those who will be involved in an emergency, or those who will be affected by an emergency, the confidence in the emergency procedures. Those participating in training need to clearly understand the plan and their role in the plan.

You need to ensure that you provide a range of training to educate staff and consider they way in which the training is delivered, group sessions, presentations, written information, leaflets, and quizzes etc.

You could consider the following format for training and educating staff:

Training: Awareness (General):

- Emergency Management Basics
- Emergency Management in context – You and your museum
- Who's who and what's what in your emergency management plan

Training: Awareness - Emergency Plan Specific:

- Training in all elements of the emergency plan
- Risks – what are we exposed too, how do we mitigate?
- Response structure
- Activating the emergency plan – when and whom
- Communication structure
- Recovery plan – how to recover?
- Review Process/ Lessons learned

You need to have trained staff before you consider carrying out any exercises.

7. Validate in exercise and response

Validate the plan through an exercise. There are 3 types of exercise, discussion based, table top and live (Home Office 1997).

Discussion based: This is cheap and easy to set up, it focuses on discussing key sections of the emergency plan, how it might work, who would be involved etc. (Ibid)

Table Top: This involves setting a scenario, which must be very carefully planned. Those involved are asked to test how the plan works as the scenario develops (Ibid).

Live: A live exercise is a full rehearsal of the plan. This is very time consuming and expensive to set up and run. They are, however, very good at helping staff to build confidence in an emergency scenario (Ibid).

You do not have go straight to doing a live exercise nor test the entire plan, you can select a component of the plan to test in a tabletop or discussion based exercise such as:

- The call out list/contact list
- The activation process
- The recovery plan
- The communication plan

You need to ensure you have trained staff in the emergency management procedures before you carry out any type of exercise otherwise you would only test what the staff don’t know and won't effectively test your plan!

8. Maintain and Review

When you have completed a training session and/or carried out an exercise you need to look at how you debrief those staff involved. This will allow lessons to be learnt and improvements to be made to your plan.

Training and exercises should not be the only stimulation to review your plan this should be done:

- As part of a review schedule
- As and when new risks arise
- As and when risks change
- Changes in the local environment
- If there are any organisational changes
- If you suffer loss of key staff

You then need to maintain your plan. You need to ensure it stays a live document so it needs to be current so it remains relevant and useful.

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