North Byron Parklands

Technical Paper

W1

Evacuation Management Guidelines

Evacuation Management Guide

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INTRODUCTION

A site risk assessment of the North Byron Parklands site examining the source of risks, implications of their impact and possible mitigation action is the basis for formulation of this evacuation management guide. As required under NBP Standard 009, Evacuation Management, event operators are responsible for developing an evacuation management plan covering but not limited to fire, flood, structural collapse, serious injury/serious assault, bomb threat, contamination/spills and outbreak of disease.

This Evacuation Management Guide provides event operators with a framework to base their emergency evacuation plans on. This Guide has been based on the Evacuation Planning Manual (#11) prepared by Emergency Management Australia, Commonwealth of Australia.

EVACUATION PLANNING PRINCIPLES

The following principles should be observed in evacuation planning:

- establishment of a management structure;
- clear definition of roles and responsibilities;
- development of appropriate and flexible plans;
- effective warning and information system;
- assurance of movement capability;
- establishment and maintenance of confidence and cooperation of affected event patrons, staff, contractors and volunteers;
- appropriate welfare provision throughout all stages; and
- exercise of developed plans.

TYPES OF EVACUATION

For the purpose of planning, all evacuations may be considered to be one of two generic types:

Immediate Evacuation—An evacuation resulting from a hazard impact, that forces immediate action, thereby allowing little or no warning and limited preparation time. Wildfire, earthquake or flash flooding are examples of events that may require immediate action.

Pre-warned Evacuation—An evacuation resulting from an event that provides adequate warning and does not unduly limit preparation time. Examples of this type of event may include flood and cyclones.

STAGES OF THE EVACUATION PROCESS

The evacuation process comprises the five stages of:

- decision to evacuate;
- warning;
- withdrawal;
- shelter; and
- return.

PLANNING CONSIDERATIONS

Detailed planning considerations for each of these five stages are provided within this document.

The evacuation process is shown diagrammatically at Figure 1.

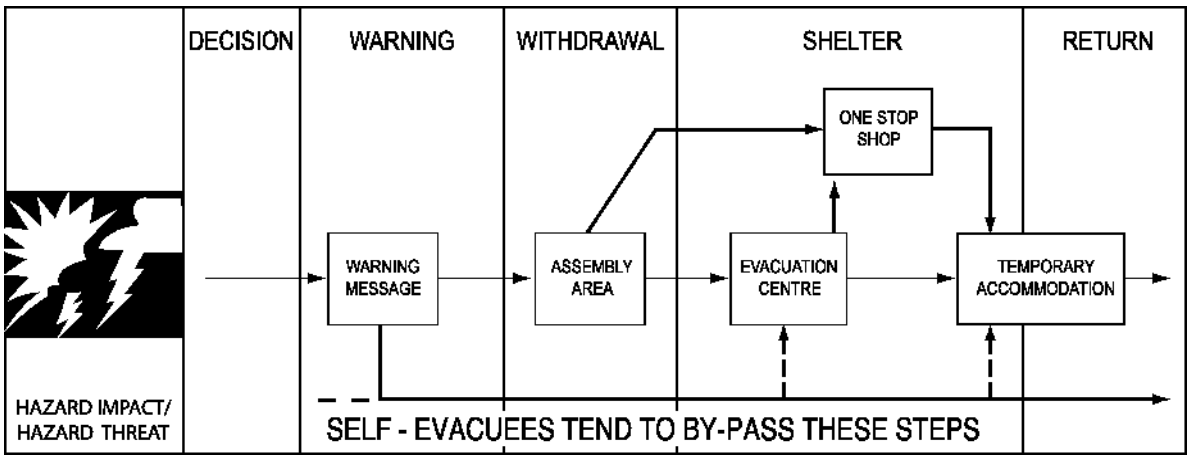

Figure 1—The Evacuation Process

THE DECISION TO EVACUATE

Making the decision as to whether to evacuate or not will be assisted by the availability of timely and relevant information. If the decision is made too early and the hazard recedes, the event may have been exposed to unnecessary risk, inconvenience and cost. If the decision is made too late, the event may be forced to either evacuate under high-risk conditions or to shelter in place and accept the effects of the hazard impact.

While the nature of the hazard impact will be a primary consideration, an effective evacuation plan supported by an event specific education program will facilitate decision making. Due to the complex nature of an evacuation operation it must not be regarded as a secondary reaction to other risk management strategies. The evacuation should be treated as a discrete response operation.

DECISION TO EVACUATE

INTRODUCTION

The decision to evacuate is the first of the five identified stages of the evacuation process. There are often many complex issues to be taken into account in making this decision and it may need to be made in the absence of the totality of the desired information.

Roles and responsibilities

As the implications of this decision, in terms of saving lives and preventing injury are of such importance, it is imperative that roles and responsibilities be clearly identified in evacuation plans.

Considerations

The following planning considerations relate to making the decision to evacuate:

- Vulnerability analysis may indicate that, for certain hazards and under certain conditions, sheltering in place could well be the best protective strategy. Typically, this could be the case for a wildfire situation. The success of this strategy will depend, to a large extent, on the level of patron awareness about the nature of the hazard and appropriate protective actions to be taken to reduce vulnerability.
- Because of the **potential for risk to evacuees during movement,** special attention should be paid to planning of this aspect. All appropriate risk control measures should be considered.
- **Available lead time** may influence the decision to evacuate. If there is sufficient time to warn and evacuate the public before the impact of the emergency (e.g. floods, wildfire) the risk during the movement may be greatly reduced. If time is not available or the hazard has already impacted it may be a case of rescuing those affected rather than evacuation.
- Evacuation can be a **time-consuming and resource-intensive process.** As the number to be evacuated rises, so does the time and resources it will take to carry out the evacuation. Movement of evacuees may cause congestion on road networks in large-scale evacuations and unless the movement of people is properly planned and managed, congested conditions could defeat the purpose of the evacuation.
- **Egress routes** must be capable of handling the requirements of the evacuation. Roads usually available or safe may not be available during evacuation. Access routes will also be required by responding emergency vehicles. For instance, consider the potential for problems caused by flooding, driving rains and debris; or fire, smoke and fallen trees.

- **Safety of emergency workers is paramount!** Consideration must be given to the safety and welfare of the emergency workers who are required to enter the affected area—both in controlling the emergency and warning those at risk. If the area is too dangerous for emergency workers, other means of alerting the public will be required.
- Identification of **available resources** (including transport and personnel) to move the evacuees will influence the decision to evacuate.
- Depending on the type of hazard impact experienced, the requirement to provide **temporary accommodation** will need to be assessed. This will become an issue in some situations when there may be a choice between either evacuating an area or advising people to shelter in place (for example, during wildfire).
- The identification of **assembly areas** in the planning process will assist in the decision-making process. Alternatives should also be selected.
- The best decision will be made after **assessment of all the available information.** The luxury of assessing all possible considerations may not always be available.
- The decision to evacuate must have regard to the specific **NSW legislation or arrangements.**
- A **current evacuation plan** will give the decision-maker greater confidence.
- Good decisions are made using **accurate and timely information.** The decision-makers should not hesitate to seek and evaluate expert advice.
- The identification of **special-needs people** may influence the decision to evacuate.
- The ability to **effectively warn affected people** will influence the decision to evacuate. Considerations would include the ability of those at risk to understand and react appropriately to the warning.
- The **effectiveness of public awareness and education programs** will influence a event's ability to adequately cope with an intended evacuation or shelter-in-place operation. A decision-maker who believes that an event community has properly prepared, will take that into account when arriving at a decision.

WARNING

INTRODUCTION

Warning is the second of five stages of the evacuation process and comprises dissemination of public information in the form of advice or direction.

An evacuation warning must be structured to provide timely and effective information. The effectiveness of the evacuation will largely depend on the quality of the warning process.

Factors which may influence the effectiveness of the warning include time, distance, visual evidence, threat characteristics and sense of urgency demonstrated by the emergency services. For example, the more immediate the threat, the greater the readiness of people to accept and appropriately react to the warning.

Roles and responsibilities

It is essential that event operators and any agencies involved in the warning stage have a clear understanding of their roles and responsibilities. Formulation of warnings should involve the participation of some or all of:

- the event community (including special-needs groups);
- the media;
- the emergency services; and
- the government agencies (all levels).

Planning responsibilities

Some of the key responsibilities that need to be clearly identified in the warning stage of the evacuation planning process are:

- who is responsible for issuing the warnings;
- who authorises the content;
- who provides the alerting/dissemination facilities; and
- who is responsible for the requirements of any special-needs groups.

Warning process

Warnings should be clear, unambiguous, be issued by the event operator and or emergency services, repeated regularly, and supported by on ground assistance by nominated emergency evacuation staff.

To be effective, warnings should have the following characteristics:

- **Authority**—Warnings are more credible and more likely to stimulate appropriate public actions if they are issued with authority;
- **Consistency**—To avoid confusion and uncertainty, it is important that consistency be maintained when multiple warnings are issued to the public;
- **Accuracy**—Accuracy and currency of information contained in the warning also affect understanding and belief. Errors can cause people to doubt subsequent warnings;
- **Clarity**—An unclear warning can cause people to misunderstand or ignore it. Warnings should be in simple language, without the use of jargon;
- **Level of Certainty**—Certainty determines the level of belief in a warning and affects decision making by those to whom the warning is given;

- **Level of Detail**—Insufficient information creates confusion, uncertainty and anxiety, and public imagination will tend to fill the information void. This can promote rumours, uninformed misconceptions or fears;
- **Clear Guidance**— Messages containing clear guidance about protective actions people should take and the time available for doing so are more effective than those which provide no specific instructions;
- **Repetition of Warnings**—Where time permits, warnings should be repeated preferably using more than one delivery method. This provides confirmation of the warning message, helps increase persuasiveness and overcomes the problem of people not responding after hearing a warning only once;
- **Impact Areas**—Warning information that clearly states the event areas actually or likely to be affected by the hazard is most effective;
- **Methods of Information Dissemination**—Warnings are more effective if a range of methods is used rather than a single method, thereby reaching as many people as possible in the shortest time. Methods such as public address systems, stage PA systems, emergency evacuation team members, etc can greatly increase the dissemination of emergency messages; and
- **Information Dissemination for Special Needs Groups**—Consideration must be given to the specific problems of special needs groups. Dissemination to, and receipt of information by, many of these groups will pose different challenges, for example, mobility.

Warning message essential content

The warning message should be prepared by the event operator in conjunction with the police, SES and available specialist advice. Information should include:

- the date and time of issue;
- an accurate description of the hazard (what has happened or is likely to happen);
- the event area that is likely to be affected immediately by the hazard and any areas that may be affected in the longer term, for example, in the case of flood, areas that will be inundated once levee banks have been over-topped;
- advice to those receiving the warning including:
    - evacuating (including anticipated duration of absence, if known) or staying onsite;
    - risk minimisation measures (if staying);
    - what to bring, for example, medication, or what not to bring, for example, bags, etc;
    - listening to event public announcements for further advice;
    - evacuation routes;
    - assembly areas;
    - assistance available (transport, medical, etc);
    - not using mobile phones unless absolutely necessary;
    - what is being done to control the hazard; and
    - the time the next warning will be issued, or advise that no further warning will be issued.

WITHDRAWAL

INTRODUCTION

Withdrawal is the third stage of the evacuation process and involves the removal of people from a dangerous or potentially dangerous area to a safer area.

Roles and responsibilities

It is essential that the event operator and all agencies involved in the 'withdrawal' stage have a clear understanding of their roles and responsibilities.

Considerations

Some of the key considerations during the planning for withdrawal are:

Control/Coordination - the event operator and agency that has the authority to order an evacuation may not necessarily carry out the physical evacuation.

Evacuation priorities - Lead time will affect the prioritising and allocation of resources. The degree of urgency and/or time constraints within which the evacuation must be completed must be considered in the plan.

Resources - (e.g. transport, personnel and communications). Limited resources may necessitate greater reliance upon self-evacuation and use of personal transport. However this may cause greater congestion on egress routes. Those least able to look after themselves may have special resources requirements.

Access/egress routes - These need to be identified, clearly marked and controlled to facilitate an orderly evacuation and to provide access for incoming personnel and resources.

Phasing - Some evacuations will need to be disciplined by phasing to avoid congestion or to ensure that special-needs groups can be evacuated in time. Phasing may be by area, where the plan specifies the sequence in which sub-areas should be evacuated, or by group where the plan specifies the sequence of evacuation of specific elements of the population.

Assembly areas - Although assembly areas will usually only be a temporary stopping point prior to moving evacuees offsite, they should be as close to the boundary of the evacuation area as safely possible. Alternatives will also need to be identified.

Special-needs groups—These may include aged, mobility impaired, etc and may necessitate special arrangements.

Security of the evacuated area — This is essential to maintain the confidence of the evacuees and to prevent looting. It is an event operator's responsibility in the first instance, and awareness and public announcements should highlight this fact.

Withdrawal control point — The plan should address the need to establish a withdrawal control point in a safe area. Considerations to be addressed when selecting a control point include:

- nature of the hazard;
- distance;
- accessibility;
- weather;
- demography;
- communications; and
- services.

Briefing to commanders of involved organizations — the evacuation plan must provide arrangements for the person responsible for the evacuation to brief the commanders of all organisations involved in the withdrawal.

The briefing should include the following:

- Details of the decision and reasons for the evacuation, including:
- The hazard, impact and effects;
- Areas to be evacuated;
- Current conditions;
- Predicted conditions;
- Allocation of tasks and priorities;
- Arrangements for special groups to be evacuated;
- Access/egress routes—route markings, traffic control and vehicle recovery;
- Location of assembly areas;
- Authority to evacuate and any limitations including ability/desirability of forcible removal;
- Special instructions to evacuees relating to:
    - reason for evacuation;
    - anticipated duration;
    - method of evacuation (own transport, bus, on foot, etc);
    - where to go to and how to get there (assembly areas and evacuation routes);
    - requirement to report to designated assembly areas;
    - personal effects to be or not to be taken, (for example, clothing, medications); and
    - securing of campsites.

SHELTER

INTRODUCTION

Shelter is the fourth stage of the evacuation process and involves provision of the basic needs for affected people away from the immediate or potential effects of the hazard.

Shelter provides for the temporary respite of evacuees. It may be limited in facilities, but must provide protection from the elements as well as accommodate the basic personal needs which arise at an individual level in an emergency.

Shelter, in the context of evacuation, may include:

- assembly areas which cater for people's basic needs ;
- evacuation centres;
- one-stop shops; and
- temporary accommodation.

Areas and centres should be planned to be established at well known, accessible, easily recognisable sites within the area.

Roles and responsibilities

The plan must allocate responsibility for management of each of the elements of shelter. Considering the wide range of services, agencies and issues to be managed, it becomes essential for 'shelter' to be managed within a structure which facilitates the coordination of agencies and services and support of emergency workers.

There is a need for agreed management and service delivery arrangements for all welfare agencies and services. Each provider must accept and implement the delegated tasks to avoid over/under or inappropriate servicing.

Coordination of the separate task areas is usually directed by the SES.

Considerations

Important planning considerations to be addressed during this stage include the following:

- **Identification of appropriate shelter areas** - this should be based on safety, availability of facilities, capacity and numbers;
- **Acquisition agreements** - These should be sought for the use and acquisition of schools, community or sporting complexes and private buildings for shelter;
- **Shelter location**—This will be dependent on the type and severity of the hazard impact. Possible sites should be identified in the planning stages with the details of contact personnel who are to be accessible 24 hours a day. This must be done in consultations with the emergency service organizations;
- **Legal aspects/insurance of buildings and users**—Council or government buildings are usually covered by public liability insurance when used for evacuation purposes. When

other than government buildings are planned for use, a check should be made with the owner or agent. If insurance coverage does not exist, appropriate cover must be arranged prior to use of the facility;

- **Access/egress**—Vehicular access and egress must be planned to accommodate contingencies arising from the incident and convergence of private, service and public vehicles;
- **Transport services**—Additional transport facilities for displaced persons may be required to re-unite them with family and friends;
- **Vehicle assembly areas**—These should be identified in accordance with needs. Consideration should be given to changed conditions due to the hazard itself, the volume of traffic and weather;
- **Existing facilities and utilities**—These must provide for:
  - sanitation;
  - water;
  - electricity;
  - communications for example telephones, computers, etc; and
  - storage.
- **Catering services** - Depending on the period of evacuation. These should be mobile and multi-functional, able to provide various forms of refreshment and/or meals to all affected people, including emergency service personnel; and
- **Medical support**—This should include first aid, medical advice and emergency evacuation (medivac).

Assembly areas

These are usually a temporary stopping point prior to moving evacuees offsite or to evacuation centres and/or alternative accommodation. They may provide minimal service (light refreshment, personal support and destination check), but the facilities available would depend upon the nature of the hazard.

RETURN

INTRODUCTION

Return is the fifth and final stage of the evacuation process. It will be necessary to assess the event area to determine if return is possible and identify any special conditions which may need to be imposed.

Roles and responsibilities

As the return process is complex and may be protracted, it is imperative that the plan clearly identifies roles and responsibilities of the event operator and any agencies involved.

Considerations

Once the hazard which necessitated the evacuation no longer exits, return to the evacuated area can be considered. There are a number of considerations which need to be taken into account in planning this stage.

Affected area assessment

A detailed assessment of the affected area must be completed before a decision is made to return evacuees. The assessment should include consideration of:

- the presence of the hazardous condition;
- the possibility of the hazard impact recurring;
- the safety of the structures;
- utilities;
- transport facilities;
- security;
- availability of suitable facilities including:
  - temporary accommodation;
  - utilities—permanent or temporary; and
  - hygiene facilities—permanent or temporary.

Evacuees return criteria

Assessment of evacuees' physical health and wellbeing should be undertaken prior to their return. The distance from the temporary shelter to the affected area is also a consideration in deciding whether the evacuees are returned direct or in stages.

CONCLUSION

Event Operators at Parklands are encouraged to use this Evacuation Management Guide when planning for and developing their own evacuation plans. Event Operators must comply with the requirements of NBP Standard 009 - Evacuation Management and are strongly encouraged to consult with relevant agencies and Parklands staff when formulating their plans.