Evacuation Planning

Australian Institute for
Disaster Resilience

AUSTRALIAN DISASTER RESILIENCE
HANDBOOK COLLECTION

Evacuation Planning

Handbook **4**

Australian Government

Attorney-General's Department

History of the Australian National Disaster Resilience Handbook Collection

The first publications in the original Australian Emergency Manual Series were primarily skills reference manuals produced from 1989 onwards. In August 1996, on advice from the National Emergency Management Principles and Practice Advisory Group, the Series was expanded to include a more comprehensive range of emergency management principles and practice reference publications.

In 2011, Handbooks were introduced to better align the Series with the *National Strategy for Disaster Resilience*. Compiled by practitioners with management and service-delivery experience in a range of disaster events, the handbooks comprised principles, strategies and actions to help the management and delivery of support services in a disaster context.

In 2015, the Australian Institute for Disaster Resilience (AIDR) was appointed custodian of the handbooks and manuals in the series. Now known as the Australian Disaster Resilience Handbook Collection, AIDR continues to provide guidance on the national principles and practices in disaster resilience in Australia through management and publication of the Collection.

The Handbook Collection is developed and reviewed by national consultative committees representing a range of state and territory agencies, governments, organisations and individuals involved in disaster resilience. The Collection is sponsored by the Australian Government Attorney-General's Department.

Access to the Collection and further details are available at www.knowledge.aidr.org.au.

Australian National Disaster Resilience Handbook Collection (2011 –)

Handbook 1   Disaster health

Handbook 2   Community recovery

Handbook 3   Managing exercises

Handbook 4   Evacuation planning

Handbook 5   Communicating with people with a disability – National Guidelines for Emergency Managers

Handbook 6   National Strategy for Disaster Resilience – community engagement framework

Handbook 7   Managing the floodplain: a guide to best practice in flood risk management in Australia

> **Guideline 7-1**   Guideline for using the national generic brief for flood investigations to develop project specific specifications
>
> **Guideline 7-2**   Technical Flood Risk Management Guideline: flood emergency response classification of the floodplain
>
> **Guideline 7-3**   Technical flood risk management guideline: flood hazard
>
> **Template 7-4**   Technical project brief template
>
> **Guideline 7-5**   Technical Flood Risk Management Guideline - flood information to support land-use planning
>
> **Guideline 7-6**   Technical flood risk management guideline: assessing options and service levels for treating existing risk
>
> **Practice Note 7-7**   Considering flooding in land-use planning activities

Handbook 8   Lessons management

Handbook 9   Australian Emergency Management Arrangements

Handbook 10   National Emergency Risk Assessment Guidelines *(plus supporting guideline)*

　　Guideline 10-1 National Emergency Risk Assessment Guidelines: practice guide

Handbook 11   *renamed Guideline 10-1 National Emergency Risk Assessment Guidelines: practice guide*

Handbook 12   *Spontaneous volunteer management*

Australian Emergency Management Manual Series

The most recent list of publications in the Manuals series includes 46 titles.

The manuals have not been reviewed since 2011 or earlier and the Manual Series is undergoing a review which will see relevant Manuals move into the Handbook Collection. Current and past editions of the Manuals will remain available on the AIDR Knowledge Hub at www.knowledge.aidr.org.au.

Manual Series Catalogue: 2004 - 2011

Manual 1   Emergency management concepts and principles (2004)

Manual 2   *Australian Emergency Management Arrangements (superseded by Handbook 9)*

Manual 3   Australian Emergency Management Glossary (1998)

Manual 4   Australian Emergency Management Terms Thesaurus (1998)

Manual 5   *Emergency risk management – applications guide (superseded by Handbook 10)*

Manual 6   *Implementing emergency risk management – a facilitator's guide to working with committees and communities (superseded by Handbook 10)*

Manual 7   Planning safer communities – land use planning for natural hazards (2002, currently under review)

Manual 8   *Emergency catering (2003, archived)*

Manual 12   Safe and healthy mass gatherings (1999)

Manual 13   Health aspects of chemical, biological and radiological hazards (2000)

Manual 14   Post disaster survey and assessment (2001)

Manual 15   Community emergency planning (1992)

Manual 16   Urban search and rescue – capability guidelines for structural collapse (2002)

Manual 17   Multi-agency incident management (replaced by AIIMS)

Manual 18   Community and personal support services (1998)

Manual 19   *Managing the floodplain (superseded by Handbook 7)*

Manual 20   Flood preparedness (2009)

Manual 21   Flood warning (2009)

Manual 22   Flood response (2009)

Manual 23   Emergency management planning for floods affected by dams (2009)

Manual 24   Reducing the community impact of landslides (2001)

Manual 25   Guidelines for psychological services: emergency managers guide (2003)

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PREFACE

The purpose of this handbook is to provide guidelines to assist in the development of evacuation plans and to ensure the principles and concepts of evacuation planning remain consistent nationally. It is designed to assist agencies in developing and revising community evacuation plans.

The first edition of this handbook was developed and published in 1998, then revised in 2005 by a steering committee consisting of emergency management personnel. The working party involved in this latest revision was coordinated by the Australian Emergency Management Institute of the Attorney-General's Department and consisted of representatives from a cross-section of agencies and jurisdictions.

This revision has enabled alignment with the key messages of the Council of Australian Governments (COAG) National Strategy for Disaster Resilience (NSDR), which are:

• disasters will happen

• disaster resilience is your business

• connected communities are resilient communities

• know your risk

• get ready – then act

• learn from experience.

These key messages underpin each of the five stages of evacuation planning: from the decision to evacuate, through to the warning, withdrawal, shelter and return. Evacuation is a complex process and careful planning will aid community engagement and minimise risks associated with the evacuation process.

These guidelines recognise there are variations in legislative powers, arrangements and terminology across jurisdictions. This handbook is designed to be used in conjunction with other handbooks in the Australian Emergency Management Handbook Series as well as applicable state/territory legislation, plans, guidelines and local arrangements.

This handbook and the National Strategy for Disaster Resilience are available on the Australian Emergency Management website www.em.gov.au

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National Security Capability Division
Attorney-General's Department

CHAPTER 1
Introduction

Scope of the handbook

This handbook incorporates guidelines and considerations for developing community evacuation plans underpinned by an all-hazards approach. It uses the nationally recognised five stages of the evacuation process as a framework for planning an evacuation. It should be used to guide pre-event community evacuation planning, which will in turn maximise the efficiency and effectiveness of any evacuation that may be required. It is recognised that any generic plan will need to be adaptable for accommodating differences in the time, place and circumstance of a specific emergency.

The handbook is not intended for use in planning site-specific evacuations; for example, high-rise buildings. This level of evacuation planning is provided for in *AS3745 Planning for Emergencies in Facilities* (available through Standards Australia Website www.standard.org.au), relevant legislation and other specific publications available from state and territory emergency management agencies.

What is evacuation?

Evacuation is a risk management strategy that may be used to mitigate the effects of an emergency on a community. It involves the movement of people to a safer location and their return. For an evacuation to be effective it must be appropriately planned and implemented.

Types of evacuation

For planning purposes, any evacuation can be categorised as one of the following types:

Immediate evacuation

This results from a hazard impact that forces immediate action, thereby allowing little or no warning and limited preparation time. Hazardous materials emergencies, air crashes, bushfires or earthquakes are examples that may require immediate action.

Pre-warned evacuation

This follows the receipt of sufficient and reliable information that prompts a decision to evacuate ahead of a hazard impact. Examples include cyclones and storm surges.

Self-evacuation

This is a spontaneous type of evacuation involving the self-initiated movement of people such as individuals, family or community groups.

Alternative to evacuation

Shelter in place

On some occasions it may be assessed that people would be safer to stay and shelter in place rather than evacuate. Shelter in place should be considered as an alternative when the risk associated with evacuation is seen as greater than that of sheltering in place; for example, cyclones or hazardous materials plumes or where time does not permit for a safe evacuation.

Stages of the evacuation process

A key consideration in evacuation planning is the five-stage evacuation process, which includes:

1.   Decision to evacuate

2.   Warning

3.   Withdrawal

4.   Shelter

5.   Return

Note: This process will be covered in more detail in Chapters 3-7.

Figure 1: Evacuation process

The evacuation process is shown diagramatically.
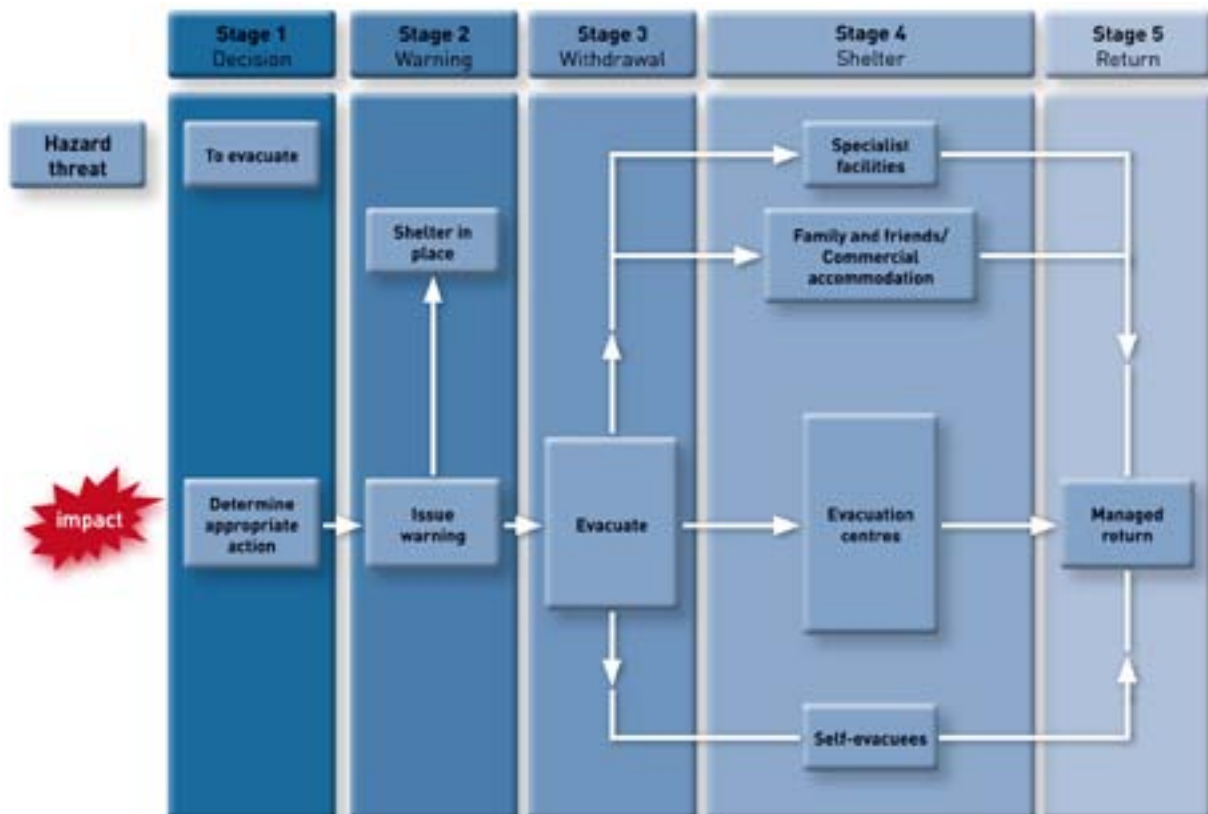
What is planning?

Emergency planning enables agreements to be reached between people and agencies to meet the needs of the community before, during and after emergencies. The plan becomes a record of the agreements made by contributing agencies to accept roles and responsibilities, provide resources and work cooperatively.

Evacuation planning is an integral part of emergency planning and an evacuation plan should supplement and complement the main emergency management plan. The starting point for developing an evacuation plan is where a risk assessment identifies evacuation as an appropriate risk management strategy.

Planning process outline

Planning is a continuous process and thus a variety of frameworks are available to support the development of a community evacuation plan. The emergency planning process (see Figure 2 below) is one such framework and is covered in more detail in Chapter 2 of this handbook.

Figure 2: Emergency planning process
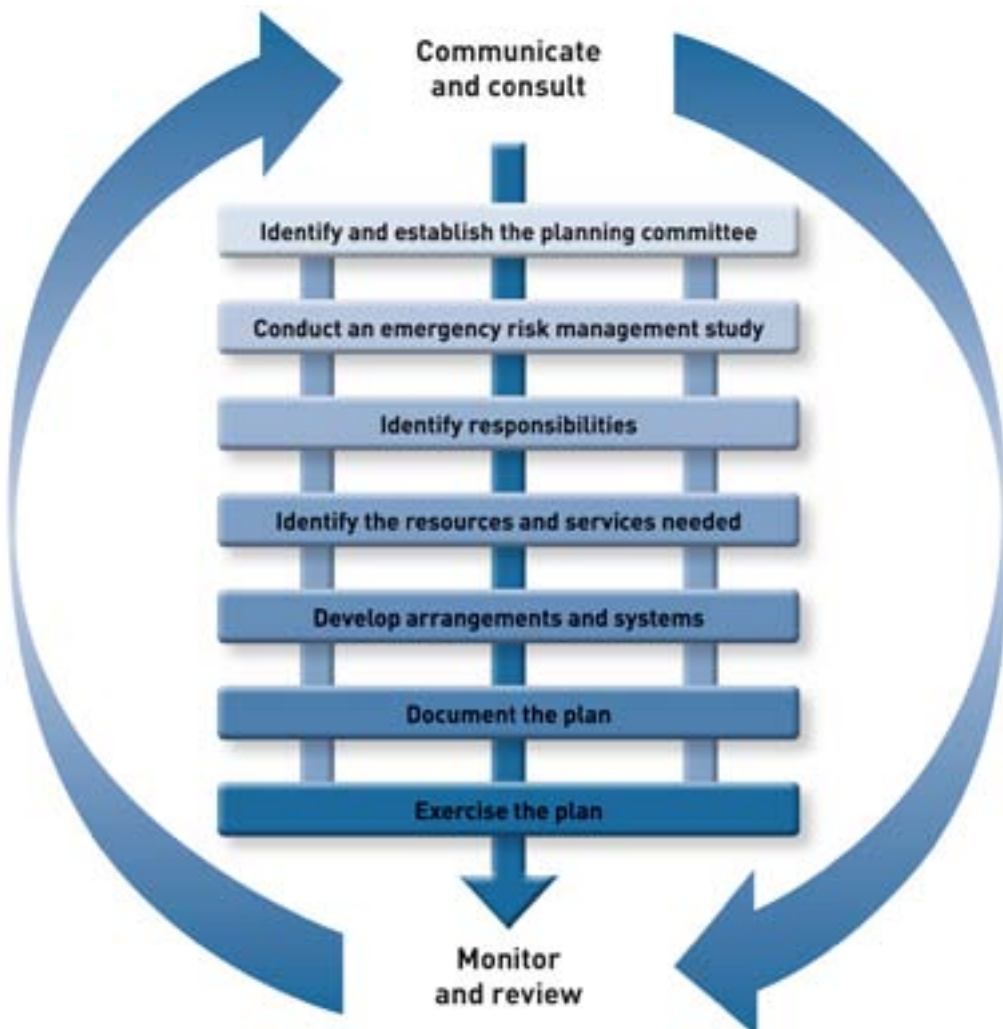
CHAPTER 2
Evacuation planning

Introduction

When developing an evacuation plan it is important to be aware of the emergency planning process (see Figure 2, p.4) as the steps involved are consistent with those used in evacuation planning.

Evacuation planning is a process that includes the following steps:

- communicate and consult

- identify and establish an evacuation planning committee

- conduct an emergency risk management study

- identify responsibilities

- identify the resources and services needed

- develop arrangements and systems

- document the evacuation plan

- exercise the evacuation plan

- monitor and review.

Communicate and consult

Effective consultation involves the ongoing engagement of all key stakeholders, particularly those with a role in an evacuation as well as the community likely to be impacted. Communication and consultation are important considerations in each step of the planning process and involve dialogue with stakeholders – with efforts focusing on genuine consultation or even collaboration, rather than on a one-way information flow from the evacuation planning committee. A communication plan may also be developed to support the engagement process, prevent planning in isolation and document the range of communication strategies.

Further information can be found in the *National Strategy for Disaster Resilience – Community Engagement Framework – Handbook 6* (www.em.gov.au).

Identify and establish an evacuation planning committee

This committee will be a subgroup that is aligned with and reports to the relevant emergency management committee. An evacuation planning committee should be convened with representatives from the community and all agencies with a role in an evacuation.

Authority and scope of planning

The authority and scope to plan for evacuation will normally be derived from the main emergency management plan or from the relevant state or territory emergency management legislation. When complete and ready for implementation it should be authorised by someone sufficiently placed to do so.

Objectives and outcomes

Setting objectives and outcomes will involve examining the stages of the evacuation process and determining exactly what tasks are required to be carried out once the decision to evacuate has been made. The nature and extent of the hazard will be assessed, along with the anticipated speed of onset, the number and type of people to be evacuated, evacuation priorities and the availability of resources. These considerations should focus on meeting, as far as possible, all the needs of those being evacuated to ensure their safety and ongoing welfare. This will be achieved by having flexible plans with a range of possible contingency options.

Conduct an emergency risk management study

An emergency risk management study should have been considered prior to the convening of the evacuation planning committee. If such a study has not been undertaken it will need to be carried out as a matter of high priority before planning begins. This will ensure the committee is aware of its risks, particularly those that may influence decision making before or during an emergency. These may include community demographics, geography, the environment, location, distance from a regional centre and/or large town, and organisational capability. Further information about risk management can be found in the *National Emergency Risk Assessment Guidelines* (www.em.gov.au) and *AS/NZS ISO 31000: 2009 Risk management - Principles and guidelines* (www.standards.org.au)

Identify responsibilities

It is essential that all agencies involved in evacuation planning have a clear understanding of their roles and responsibilities: this includes control and coordination of all stages of the evacuation process. In some states and territories these roles are incorporated in legislation and/or emergency management arrangements.

Each stage of an evacuation may be the responsibility of a different agency. Therefore, the activities of each agency must be coordinated to ensure the overall process works efficiently. It is therefore important for the evacuation plan to clearly reflect the roles and responsibilities of all agencies involved.

Management of the evacuation will involve the planning committee examining the existing emergency management structure and arrangements to ensure that adequate control and coordination can be exercised over the total evacuation process. The management structure for each stage of the evacuation must be agreed to and documented in the plan.

Identify the resources and services needed

The plan needs to identify all resource requirements and detail how they are to be obtained for an evacuation. The agencies involved should analyse their capability, resource requirements and availability and address any identified shortfalls. The evacuation planning committee needs to adopt a collaborative approach to planning to ensure sufficient resourcing across different agencies during an evacuation.

Develop arrangements and systems

The evacuation planning committee should identify and develop specific management arrangements addressing each of the five stages of evacuation. The considerations covered in chapters three to seven of this handbook should be discussed and taken into account to develop specific arrangements and systems for evacuation.

For example:

• access/egress routes including traffic management points

• effective warning methods

• identification of possible assembly points.

Document the evacuation plan

To minimise errors and omissions, detailed documentation commences simultaneously with the planning process. The evacuation planning committee should keep minutes that document the plan's development and endorsement.

The agreed plan should be documented and made available to all those agencies with a potential role in the evacuation. The relevant sections of the plan should be made available to the wider community by a variety of means; for example, libraries, websites and community notice boards. Version control protocols should be developed and implemented for all documentation.

Exercise the evacuation plan

Once documented, the plan should be regularly exercised to validate, assess, test, train and identify any gaps. Several approaches may be applied to exercise the plan. A field exercise may not always be practicable due to the cost, inconvenience or risk to the community. Other approaches may be more feasible, such as discussion or functional exercises. Accordingly, those involved should be able to assess their ability to respond in an appropriate manner, and to anticipate the problems that may be encountered. Involving the local community in any exercises should be considered where possible.

After an exercise is conducted and the evaluation of the exercise is completed, a report should be distributed to all parties for comment and review. The report should then be finalised. Further information about managing exercises can be found in *Handbook 3 - Managing Exercises* (www.em.gov.au).

Monitor and review

The plan must be monitored, reviewed and updated as required – taking into account any lessons learned from activating the plan, agreed recommendations from inquiries or reviews of emergencies, evaluation reports from exercises or actual evacuations, or changes in risk assessments. The affected community needs to be involved in any review process.

CHAPTER 3
Stage 1 – Decision to evacuate

Introduction

The decision to evacuate is the first of the five stages of the evacuation process. Many complex issues need to be considered in making this decision and often with only limited information available. The decision to evacuate or not is an important stage to take into account during the planning process. When an emergency occurs and the time comes to make the decision, the people and the agencies involved are in a better position to make informed decisions because they have planned. A number of the considerations in this chapter can be discussed and agreed to in the evacuation planning committee before an emergency occurs.

Considerations

The following considerations may help the decision to evacuate or not:

Legal issues

- Who has the authority to make the decision to evacuate?

- Is the capacity to make this decision compromised (for example, competing tasks, personal conflicts, time or external pressures, knowledge and experience)?

- Are there any legal constraints on the authority to evacuate?

- Are there any legal enablers?

Note: The authorised agency usually makes the decision in a collaborative environment in consultation with other agencies. The agency with the authority to order an evacuation may not necessarily carry out the physical evacuation.

Community preparation

- Is there an existing evacuation plan for this community?

- Is the community prepared (informed, consulted, collaborated, experienced and exercised)?

There is recognition that a community that has been engaged and empowered will take responsibility and know what to do. Further information about community engagement can be found in the *National Strategy for Disaster Resilience - Community Engagement Framework - Handbook 6* (www.em.gov.au).

Risk management

- Does the nature and probability of the threat require evacuation?

- What other risk management strategies are in place that may affect the decision?

- What are the consequences of evacuation compared with shelter in place?

- Have the relevant key stakeholders been consulted?

- What are the consequences of making the decision to evacuate too early/late?

- What is the risk to evacuees and emergency workers in undertaking an evacuation?

- Are there any people at risk that require special consideration?

- Is there a likely loss of infrastructure that will affect the community's capacity to remain?

- What are the risks involved in sheltering?

- Is a full or partial evacuation required?

- Should the evacuation be phased or prioritised?

- Is other relevant information available to make the decision (for example, weather and historical data)?

- What are the time constraints to undertaking the evacuation process?

- What is the anticipated time and location of impact?

Note: Further information about risk management can be found in *AS/NZS ISO 31000: 2009 Risk management - Principles and guidelines* (www.standards.org.au).

Resources

What is the availability and capacity of:

- resources (personnel and equipment)?

- access and egress routes/traffic management plans?

- transport options?

- suitable accommodation options?

- robust supply chain (for provision of food, water and medical supplies)?

- communication channels?

Documentation and communication

Planning for evacuation needs to incorporate a means of communicating and recording decisions made. The decision to evacuate must be communicated to relevant agencies and the community likely to be affected.

CHAPTER 4
Stage 2 – Warning

Introduction

Warning is the second of the five stages of the evacuation process. The purpose of a warning is to provide public information in the form of advice or recommendations from the responsible agency.

Warnings are intended to achieve two primary outcomes:

1.   Inform the community of an impending or current threat

2.   Promote appropriate protective actions of which evacuation could be an option.

A warning must be structured to provide timely and accurate information: the effectiveness of the evacuation will largely depend on the quality of the warning.

Factors that may influence the warning's effectiveness include time, distance, visual evidence, threat characteristics and the 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.

The evacuation planning committee in collaboration with the community needs to establish an appropriate warning system. This should include dissemination methods and content with agreed protective actions. In the potentially heightened emotional atmosphere of an evacuation, warnings the community has prior knowledge of and familiarity with are more likely to be effective.

When possible, specific pre-determined trigger points to activate appropriate levels and types of warnings should be integrated into the planning process. For example, when flood waters reach a pre-determined level the responsible agency, using a prepared script, will advise residents when to evacuate.

Warning methods

Individual states and territories have chosen specific warning methods to adopt and when to activate them in accordance with the specific circumstances of an emergency. The following are methods that have been nationally agreed to:

Standard Emergency Warning Signal (SEWS)

The SEWS is a distinctive audio signal that alerts the community to the broadcast of an urgent safety message relating to an emergency, such as an imminent threat that requires evacuation.

The alert signal is designed to be played on electronic media (for example, radio, television, public address systems, mobile sirens) to draw listeners' attention to an emergency warning that follows.

Those responsible for planning the broadcast of warnings should consider using the SEWS to precede those warnings. All electronic media outlets have been given a copy of the SEWS guidelines and are capable of delivering the audio warning signal on instruction from the responsible agency.

Further information about the SEWS policy as well as an electronic version of the alert can be found at www.em.gov.au

Emergency/Community Alerts

These are known either as an Emergency Alert or Community Alert depending on the jurisdiction. They are messages sent by emergency services to landline telephones (based on the location of the handset) and to mobile phones (based either on the service address and/or the device's geographical location). During an emergency such an alert may be received by a voice message via landline or text message on the mobile phone.

Warning

Warning

Effective warnings characteristics

The major characteristics of effective warnings are:

Accuracy – accuracy and currency of information contained in the warning influences understanding and belief. Errors can cause people to doubt subsequent warnings.

Authority – warnings are more credible and likely to be adhered to if issued by a recognised authority.

Clarity – unclear warnings can cause people to misunderstand or ignore them. Warnings should be in simple language, without the use of jargon and acronyms.

Clear guidance – messages with clear guidance about the protective actions people should take and the time available for doing so are more effective than those that provide no specific instructions.

Consistency – to avoid confusion and uncertainty, consistency should be maintained when multiple warnings are issued to communities.

Impact areas – warning information should clearly state the areas actually or likely to be affected by the hazard.

Information accessibility – consideration must be given to the specific needs of people and groups more at risk. Dissemination to and receipt of information by many of these groups will pose different challenges and require different solutions. Neighbours can be encouraged to check on people nearby who may be at risk.

Level of certainty – certainty determines the level of belief in a warning and affects the decision making of those to whom the warning is given.

Level of detail – insufficient information creates confusion, uncertainty and anxiety, and community imagination will tend to fill the information void. This can promote rumours, uninformed misconceptions or fears.

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 receiving a warning only once.

Timing of warnings – the timing of warnings will vary depending on the nature of the emergency. Warnings need to be issued at an appropriate time so that adequate preparation for potential evacuees and emergency workers can occur. This may involve the issuing of pre-emptive messages outlining the potential need for an evacuation through to the warning itself. Warnings delivered too early may have a significantly reduced effectiveness, as the target audience may disregard the warning as time progresses and no further information is forthcoming. Likewise, a warning issued too late will be of little value as the recipients will not have enough time to respond to the information being provided.

Warning message content

The following considerations may need to be included in the warning message:

- expected duration of absence

- what to bring, such as identification and medication

- what not to bring (as per jurisdictional arrangements); for example, livestock or non-essential items

- listening/watching nominated public information source, such as radio, television and social media

- securing of premises and personal effects

- evacuation routes

- locations of shelters

- available assistance (for example, transport and health services)

- not using telephone unless absolutely necessary (overuse can overload telephone systems and prevent additional messages from getting through)

- how to manage companion animals and livestock

- what is being done to control the hazard

- registration sites.

Additional messaging may be required for shelter in place warnings. This will depend on the nature and duration of the hazard and may include the following:

- personal safety

- self-sufficiency guidance

- protective actions measures, such as closing windows, isolation of air conditioning systems

- re-supply instructions for food, water, power and other essential services

- suitability of shelter location and type

- mental and physical fitness.

Common Alerting Protocol (CAP)

All jurisdictions have agreed to the CAP. The content of warnings should, where practicable, be consistent with the Australian Government Standard for CAP.

The CAP is an international standard that allows consistent and easy to understand emergency messages to be broadcast across a variety of communication systems. CAP can be used to alert and inform emergency response agencies, media and the general public. CAP ensures that messages remain consistent and clearly indicate to the recipient the severity of the threat and best response.

Further information about the CAP can be found at www.em.gov.au

Considerations for message content

The evacuation planning committee should consider developing prepared scripts to ensure all relevant, timely and accurate information is included in the warning message.

The following are essential for warnings:

- the issuing authority

- the date and time of issue

- an accurate description of the hazard (what has happened or is likely to happen)

- the area that is likely to be affected by the hazard

- the area to be evacuated

- the source to validate and/or gain further information

- the consequence of non-compliance; for example, 'those who elect to remain in the area do so at great risk of harm and emergency service agencies may not be able to assist you in your time of need'

- the time the next warning will be issued, or advice that no further warning will be issued.

Note: CAP complies with these essential elements.

Target audience

In many instances the nature of the target audience in the community will determine both the type of warning to be delivered, as well as the actual content of the message. For example, some community members may need more warning time, some will take longer to mobilise, some may not be able to hear the warning or may lack transportation, some may need assistance to move and others may require access to health services during and after the evacuation.

Some of these groups or areas most at risk may include the following:

Health-related:

- hospitals

- nursing homes

- rehabilitation/supported accommodation sites (alcohol and other drug services, disability services)

- people with psychosocial disability

- people who are blind or visually impaired

- people with disability affecting speech, language , voice and hearing

- people with a physical disability

- people under home-based treatment/support (home dialysis, oxygen concentrators).

Note: Further information about working with people with disability can be found in *Communicating with People with a Disability: Guidelines for Emergency Managers - Handbook 6* (www.em.gov.au).

Educational:

- day care centres

- pre-schools

- schools

- special schools

- tertiary institutions

- school camps.

Facilities:

- correctional facilities

- commercial and industrial

- recreation and sporting

- churches

- aged care facilities

- transport

- multi-occupancy

- aged care facilities

- critical infrastructure operations.

Owners of animals:

- companion animals (including guide/support animals)

- livestock.

Others:

- people who are socially isolated

- people who are homeless

- unaccompanied children

- remote communities

- tourists

- culturally and linguistically diverse (CALD)

- mass gatherings/major events.

Dissemination methods

A wide range of methods are available to disseminate warnings to individuals and the community. Several methods and strategies of dissemination should be considered to ensure the warning is received by the widest possible audience.

GENERAL (mass audience)

Listed from faster to slower dissemination:

- social media

- radio message: break-ins with community announcement or interviews

- mass telephone messaging systems voice and SMS (Emergency/Community Alert)

- television: announcements during news or program breaks or 'crawlers' (messages drawn across the screen)

- government and related websites

- scheduled news bulletins

- notice boards: community or tourist information boards

- community meetings

- newspapers: local or regional.

SPECIFIC (more targeted audiences)

Listed from faster to slower dissemination:

- telephone (and telephone call trees or cascades where each person contacted then calls others on either a pre-determined list or ad-hoc basis)

- building Warden Intercom Point (WIP)

- emails (mass or targeted)

- two-way radio: Citizens' Band (CB) radio or 'packet' radio

- loud hailers, public address systems or sirens: mobile as with police or fire vehicles, or fixed in one place

- door-knocking*

- community leaders: use of key individuals to access their network

- warden systems: use of key individuals to access their network.

*During evacuations the risk to emergency workers can be high, especially in situations where door-to-door warnings are being given. Emergency workers becoming casualties may jeopardise the effectiveness of the evacuation. The plan must consider all options available to minimise the risks to emergency workers.

CHAPTER 5
Stage 3 – Withdrawal

Introduction

Withdrawal is the third of the five stages of the evacuation process and involves the orderly movement of people from a dangerous or potentially dangerous area to one that is safer.

Experience shows that self-evacuation can be effective, and should be supported when it occurs. It tends to be orderly, reasonable from the evacuees' perspective and generally effective in removing people from danger. Self-evacuees do not usually panic or behave in a chaotic or disorderly manner.

Controlled evacuation can also be effective and is generally easier to manage, but requires a major and sustained commitment of resources. It also allows a phased evacuation where designated segments of the affected area are moved in a nominated sequence.

When planning for withdrawal, it must be decided whether evacuees will be permitted to move using their own vehicles or if transport is to be provided.

Movement considerations

Consider the following factors when developing a plan for withdrawal:

Urgency of the situation – this will be affected by time constraints and the nature of the hazard, which will influence the allocation of resources.

Phasing – some evacuations may be phased to avoid congestion or to ensure that people most at risk can be safely evacuated in time. Phasing may be by geographical area, where the plan specifies the sequence in which locations should be evacuated. Phasing may also be by group, where the plan specifies the sequence of evacuation of specific segments of the community; for example, childcare facilities being evacuated before the general population.

Transport resources – transport resources must be planned and prioritised for specific locations and people most at risk. There may be a need to obtain specialist transport such as wide-aisle buses, wheelchair-accessible vehicles, ambulances, mass transport, boats or aircraft to help people most at risk or those who may be isolated. The likely extent of self-evacuation will also affect the planning of transport resources.

Traffic management plan – this will include details of access/egress, contra flow, traffic management points, fuel supply and vehicle breakdown contingencies and may include a pre-determined route management plan.

Access and egress routes need to be identified, clearly marked and controlled to facilitate an orderly evacuation. Providing separate access and egress routes for emergency service personnel and vehicles should be considered.

Traffic management points may be required for extended evacuation routes, or routes going through difficult terrain. They may also be used to control movement into and out of evacuated areas by emergency services and other authorised personnel.

People most at risk – people at risk need to be identified early in the planning process to, resource permitting, facilitate appropriate movement strategies for them.

Maintaining family groups – planning should consider, wherever possible, the need to move each family group as a complete unit, given the division of family groups can create further challenges.

Destination – this could include areas such as assembly areas, refuges, evacuation centres, commercial or specialist facilities or homes of family or friends. There may also be a need to monitor the welfare of vehicle occupants on extended trips or in adverse weather.

Need for security around evacuated premises

Adequate security arrangements for vacated properties and possessions left behind need to be planned for, because these will influence the decision by some individuals to evacuate or not. It will also involve evacuees securing premises before they depart, as well as an active program of security.

Potential risks in moving people

Dislocation and the potential dangers people may face during an evacuation are likely to place them under considerable psychological and physical stress. The sensitivity of their situation should be carefully considered when planning an evacuation. The implications of this will need to be incorporated into the planning of all stages of an evacuation and particularly so at the withdrawal stage.

CHAPTER 6
Stage 4 – Shelter

Introduction

Shelter is the fourth of the five stages 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 and is regarded as a dynamic social process. The needs of individuals may vary over time and the different phases of sheltering may not necessarily be sequential.

Figure 3: Phases of sheltering
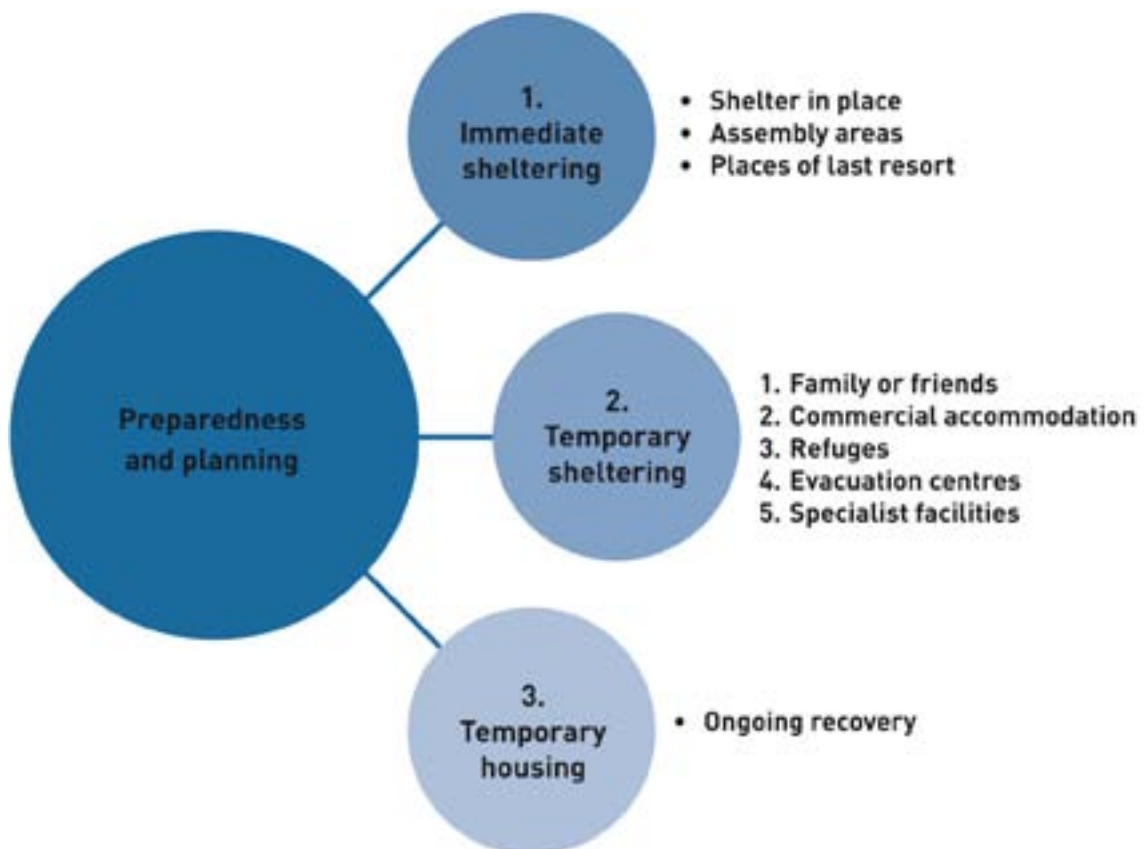
Adapted from Quarantelli, EL 1982, 'General and particular observations on sheltering

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and housing in American disasters', *Disasters*, vol. 6, no. 4, pp 277-281.

The evacuation planning committee should consider the most appropriate types of shelter for this stage of the evacuation process. Many variables need to be considered in determining when, where and what types of shelter can be provided. Planning offers the opportunity to identify and assess a wide range of shelter options for an evacuation.

1. Shelter in place

2. Family, friends or commercial accommodation outside the impact zone

3. Assembly areas

4. Refuges

5. Evacuation centres

6. Specialist facilities

7. Places of last resort

1. Shelter in place

Shelter in place is appropriate for situations when an evacuation is not required, or when the nature of the hazard is such that an evacuation is not a safe option.

2. Family, friends or commercial accommodation outside the impact zone

Sheltering at the home of family or friends or in commercial accommodation is an option when it is safe to move outside the impact zone.

3. Assembly areas

Assembly areas can have two functions:

a. To provide a temporary safer area for a short-term evacuation.

b. To provide a temporary stopping point before moving evacuees to evacuation centres for alternative accommodation.

These may provide minimal requirements such as registration, light refreshments, information and limited personal support.

In the assembly area information should be provided about the evacuation process,

the hazard, sheltering, return options, evacuation centre location/s and how to get to them.

4. Refuges

Refuges are designated buildings or structures that can provide short-term shelter from the immediate life-threatening effects of an emergency. Very limited facilities, services and support may be available. In some jurisdictions refuges are also known as shelters, emergency shelters, community fire refuges or bunkers.

5. Evacuation centres

An evacuation centre should be a safe and secure place for meeting the basic needs of people away from the immediate or potential effects of an emergency. While the arrangements across jurisdictions will vary, the primary function should be to address basic human needs and support requirements.

The following table identifies some of the essential, recommended and desirable elements of an evacuation centre.

Essential	Recommended	Desirable
Water	Beds	Entertainment
Food	Bedding	Access to the internet
Shelter	Extra clothing	Transport support
Personal support	Personal amenities	
Toilets	Showers	
Wash facilities	Cultural and religious support	
Safety/security	Interpreters	
Basic health assistance including first aid	Companion animal management	
Information	Children's activities	
Communication	Emergency financial assistance	
Registration		
Disability support services		

Adapted from Australian Red Cross Evacuation Centre Field Guide 2012.

6. Specialist facilities

When evacuees are unable to care for themselves or require additional care, they may be referred to specialist facilities such as hospitals, aged care or similar facilities. Planning is also necessary here as those specialist facilities may require evacuation also.

7. Places of last resort

A place of last resort should only be used when all other plans have failed or no other option exists. They are places that may provide some protection from the effects of the hazard, but there is no guarantee of safety. They are unlikely to have facilities or resources and will not be staffed by agencies and services.

Considerations for evacuation centres

The following are considerations which may be applied in the plan:

1. Site selection

When selecting a potential site, it is imperative the following is considered:

- safety and suitability – should be located in a safe area away from the hazard's potential effects and should be fit-for-purpose

- capacity – needs to have enough room to sleep each person

- adequate space for each person and communal dining, recreation and service provision

- amenities – adequate toilet, shower, hand washing and laundry facilities

- accessibility – ensuring the building and amenities are accessible for people with a physical disability

- connected and operating power and water services

- adequate airflow (heating and cooling)

- availability – ensuring the centre can be used for the duration of the event

- acquisition Agreement/s or Memorandums of Understanding – should be sought for the use and acquisition of schools, community or sporting complexes and private buildings for shelter

- legal aspects/insurance of buildings and users – government buildings are usually covered by public liability insurance when used for evacuation purposes (When facilities other than government buildings are planned for use, insurance coverage must be confirmed with the owner or agent. If insurance coverage does not exist, appropriate cover must be arranged before the facility is used)

- traffic management – parking, vehicle access, security and surge capacity. Other means of transport also require management.

2. Management and coordination

Management of an evacuation centre occurs in a multi-agency environment and requires careful planning to ensure adequate staffing and resourcing is available. Each agency is responsible for carrying out its designated role and ensuring it has adequate capacity. Agreed management and service-delivery arrangements for all support and/or welfare agencies and services are required, and this should be documented in the evacuation plan.

It is also imperative that clear lines of accountability and communication are planned for within and between agencies. A management structure must be developed for overseeing the coordination, resources and supply to evacuation centres, including logistics, welfare, administrative, health and other support functions and these should also be included in the evacuation plan.

Further information can be found in *Community Recovery - Handbook 2 pp. 330-31* (www.em.gov.au).

Shelter

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Generic considerations for shelters

1. Registration

Australia has a nationally agreed registration system called the National Registration Inquiry System (NRIS). NRIS is operated by the Australian Red Cross.

Registration enables people to be identified, supports their safety and welfare, reconnects them with family and friends, and facilitates access to community workers, welfare and support services. This function is an essential requirement for any evacuation and as far as possible should include self-evacuees. While registration is not mandatory, it is strongly recommended and can be put in place during withdrawal at an assembly area or evacuation centre, by phone or through the internet. The registration process permits information to be shared with response and recovery agencies, if consent is given by the evacuee.

Further information about NRIS can be found at www.em.gov.au

2. Public information

Information will be highly sought after by evacuees. Evacuation planning should ensure that clear, current and regular communication using a variety of mediums such as print, verbal, electronic and broadcasting addresses the following:

1. updates on the emergency situation

2. updates on road closures and restricted access

3. updates on what services are available

4. provision of material aid

5. emergency financial assistance

6. information about the response and recovery efforts

7. closure of the shelter

8. plans for return

9. opening of a recovery centre

10. access to ongoing recovery support services.

Messages should be tailored to meet the needs of the following groups:

• evacuees

• shelter personnel

• the surrounding community

• shelter-site owners or operators

• emergency management personnel.

Public information management plans should be developed to support the evacuees, shelter personnel and the community.

3. Contingency arrangements

A shelter may become compromised or exceed capacity, so an alternative shelter site with the appropriate capacity, infrastructure and support services should be identified in the plan.

Plans should also account for the situation escalating to a point where additional resources are beyond the capacity of the existing services and agencies.

4. Animal welfare

Some people may be reluctant or refuse to evacuate if they are unable to bring their companion animals. When identifying shelters the evacuation planning committee should ensure that at least one of the centres in the geographical area has the capacity to cater for companion animals. Owners should retain responsibility for the welfare of these animals including their feeding, cleaning and control.

An agency should be nominated under the local plans for animal welfare, including provision for the management of livestock.

5. Health and safety including security

Ensuring the safety of shelter staff and evacuees is of paramount importance and should be planned for by taking into consideration:

Shelter

- building safety

- safe work practices for personnel

- clearly communicated and enforced behavioural expectations

- environmental health issues and the prevention and control of communicable diseases and food safety

- provision for onsite security of shelters as per local arrangements – this may involve police, private security services or other authorised persons

- a risk assessment could be undertaken using the risk management principles and guidelines. Further information about risk management can be found in *AS/NZS ISO 31000: 2009 Risk management - Principles and guidelines* (www.standards.org.au).

6. Exit strategies

The eventual managed return of evacuees to their homes or moving them to alternative accommodation must be planned for. It is important to build an exit strategy into shelter planning.

This exit strategy should address:

- consultation with the evacuees

- public information about the closure of the shelter

- links to alternative accommodation options

- ongoing recovery services and support.

7. Link to recovery

The support services provided to people in a shelter should be consistent with the services provided as a component of the local recovery plan and arrangements.

Recovery centres or 'one stop shops' may be established in a separate facility during the shelter stage to provide recovery assistance. Information about ongoing access to recovery support services should be made available to evacuees.

CHAPTER 7
Stage 5 – Return

Introduction

Return is the fifth and final stage of the evacuation process.

The decision to allow evacuees to return to the evacuated area will depend on a number of factors. In particular, it will be necessary to:

- assess the evacuated area to determine if return is safe and possible; and

- identify any special conditions that may need to be imposed on return.

The return of evacuees should be a planned and managed process: this is to ensure the safety, welfare and ongoing support needs of the community are met.

The decision to return

The evacuation plan should require the relevant agency to complete a detailed assessment before making a decision to return evacuees. This assessment will be made by assessment teams that include representatives of the evacuated community. The teams should consider whether the situation in the evacuated area would support the safe return of evacuees once the area had been declared safe.

Factors that may affect the return of evacuees

The following factors should be considered when planning the return of evacuees:

Hazard:

- absence of the hazard, residual hazards or new threats

- possibility of the hazard returning

- with natural hazards, evacuees may try to return before it is safe to do so

- with hazardous materials, the problem may be overcoming evacuees' reluctance to return.

Return

Conditions where the evacuees are returning to:

- the safety of structures

- availability of safe access and egress routes

- availability of facilities, services and utilities

- availability of safe water and food supplies

- the preservation of part of the area as a crime scene.

An assessment of the physical and emotional wellbeing and capacity of evacuees including:

- capacity of health and other services within the area affected and the likely requirements of the returning evacuees

- need for and access to counselling services

- availability of established community management structures and processes, or development of replacements, to support return; for example, local government or local leadership.

Distance to the evacuated area, to determine whether:

- evacuees return directly

- return through a staging area (a location where evacuees can safely gather).

Assessment of the economic factors involved in returning, particularly whether the short- and longer-term viability of the evacuated area is compromised by the timing and pace of the return.

Return

Provision of support services for those returning:

- restoration of local government services

- health and welfare services

- financial services, such as banking and insurance facilities

- education and child care facilities

- businesses.

Public information to inform evacuees about:

- return arrangements

- accommodation arrangements

- transport arrangements

- safety precautions and restrictions

- health services

- food and water supply

- financial options

- employment options

- ongoing access to recovery support services

- preservation of crime scene(s) if applicable.

Conflict

The possibility of conflict should be anticipated by the evacuation planning committee and strategies developed to reduce or prevent it as far as possible.

Such conflict may occur between the evacuees' desire to return to their homes as soon as possible and the emergency management agency's need to delay the return until the evacuated area is declared safe and can adequately support the returning population.

Return

There may also be animosity between those who stayed and those who evacuated. Providing a safe escort for the returning evacuees may therefore be required and needs to be considered in the planning process.

Transition to recovery

Some elements of the return may overlap with the components of a recovery plan. Hence the return must be coordinated between the responsible agencies and the evacuation plan integrated not just with the emergency management plan, but also the recovery plan.

Further information about the recovery process can be found in *Community Recovery – Handbook 2* of the Australian Emergency Management Handbook Series.

www.em.gov.au

Emergency Management in Australia website