

# Victorian Warning Protocol

Version 2.0  
July 2013



## Acknowledgements

This Protocol has been developed utilising a range of research, reviews and resources produced by a number of agencies. The following are thereby acknowledged:

2009 Victorian Bushfires Royal Commission – Interim and Final Reports

Council of Australian Governments (COAG) National Inquiry on Bushfire Mitigation and Management (2004)

COAG Report on Natural Disasters in Australia, August 2002

Australasian Fire and Emergency Services Authorities Council, A National Systems Approach to Community Warnings – Discussion Paper (DRAFT Version 1.1), April 2009

Victorian Office of the Emergency Services Commissioner, Victorian Community Information and Warning System Guidelines (DRAFT), April 2009

Australian Governments and the Broadcast Media Industry, Emergency Warnings Choosing Your Words, Edition 2, November 2008

Heads Up Early Warning Systems for Climate, Water and Weather Related Hazards: United Nations University 2009.

Molino Stewart Review of Community Bushfire Warnings 2011

Australian & New Zealand Counter Terrorism Committee language project 2012

National Telephony Warning System Guidelines V1.4 November 2012

Australian Government standard for Common Alerting Protocol - Australia Profile (CAP-AU-STD) V2.0, May 2012

# Agreement to the Victorian Warning Protocol

The following stakeholders signed off the contents of the Victorian Warning Protocol in November 2009. Stakeholders acknowledge that full consultation was undertaken throughout the development of this Protocol and that the contents are an extension of existing emergency management arrangements.

- Country Fire Authority
- Department of Health
- Department of Human Services
- Department of Environment and Primary Industry
- Emergency Services Telecommunications Authority
- Metropolitan Fire and Emergency Services Board
- Office of the Emergency Services Commissioner
- Victoria Police
- Victoria State Emergency Service

The stakeholders and the Fire Services Commissioner have reviewed the updates outlined in Version 2, and are cognisant of, and agree with the principles contained therein.

The stakeholders undertake to comply with this Protocol to the best of their ability and as far as is reasonably practicable in the circumstances, subject to any laws, regulations and/or other legally binding protocols and agreements.

## Record of Amendments

Version	Date	Amendment(s)	Author(s)
2.0	July 2013	SERPC acknowledge Version 2 - Updates to language, CAP AU STD and Appendix 3	Fire Services Commissioner Victoria
1.0	Nov 2009	Approved by stakeholders acknowledged in Agreement to the Victorian Warnings Protocol	Office of the Emergency Services Commissioner Victoria

This protocol is a living document that will be reviewed periodically. New versions will only be published when sufficient changes warrant revision.

Changes to this Protocol will require the agreement of the above stakeholder organisations.



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## 1. Introduction

A warning is a method utilised by authorities to warn or inform relevant communities of an impending emergency and/or provide them with appropriate information or advice on heightened risk situations. Effective community information and warning systems are a key component in managing emergencies and can assist in preventing the loss of life as well as limiting material, infrastructure and economic damage.

The Victorian Warning Protocol (hereafter referred to as “the Protocol”) was established to provide emergency response agencies with a coordinated and consistent direction on advice and/or warnings to inform the Victorian community of a potential or actual emergency event.

The Protocol was developed under the auspices of the national warning principles agreed to by the Ministerial Council for Police and Emergency Management – Emergency Management in September 2008. In accordance with these principles, a national warning process was subsequently developed. Both the national warning principles and process are outlined at Appendix 1. The changes to the State Emergency Response Plan and associated parts of the Emergency Management Manual Victoria (EMMV) are consistent with the national warning principles outlined at Appendix 1.

For the purposes of consistency, agencies should integrate the Victorian Warning Protocol into their agency specific emergency management arrangements where practicable. Agencies shall ensure that warning procedures are well documented, communicated and understood by all relevant emergency management staff.

This Protocol is to cater for information and warnings in the lead up to and during the response phase to advise and warn communities of potential threats and actions to be taken for their safety. Standard agency procedures are to be followed for non-emergency related community information requirements, including recovery.

## 2. Authority and Responsibility

Current legislative authority for warnings in Victoria is legislated by the Emergency Management Act 1986, Section 10 and the Fire Services Commissioners Act 2010, Part 2 Division 5.

Part three of the EMMV outlines the State Emergency Response Plan prepared in line with the Emergency Management Act and signed off by the Minister. Part three states the protection of life must be the main priority when agencies are responding to an emergency. Warnings should be used under specific circumstances where community action is necessary to protect lives, and for the protection of property or the environment.

The control agency has the responsibility to issue warnings to the potentially affected community, and to other agencies.

The control agency such as the Victorian fire agencies issue their own Emergency Warnings, Watch and Act or Advice messages. Others, like VICSES have arrangements in place with an official warning agency, such as the Bureau of Meteorology (BOM), to issue Watch messages and/or Warning messages that will be constructed and issued by that official warning agency.

These messages will contain community action statements that have been pre-determined in consultation with the control agency and specific to a particular phenomena (eg: severe

weather, flooding, tsunami, etc). Based on the intelligence provided by the official warning agency, and having regard to the possible impacts on communities, the control agency will consider issuing additional public information to at risk communities beyond the statements in the official warning agency products.

Warnings and the release of other public information should be authorised by the Incident Controller prior to dissemination. Where an extreme and imminent threat to life exists and authorisation from the Incident Controller is not practicable in the circumstances, warnings may be issued by any response agency personnel.

Although the Incident Controller holds the primary responsibility for the issuance of warnings, the Regional/Area of Operations Controller and/or State Controller may issue warnings on behalf of the control agency. This may occur in the event that the Incident Controller is unable to do so in a timely manner as described above.

In the event that none of the tiers of the control agency are able to issue warnings, or require assistance with the issuing of warnings, the control agency must advise the Emergency Response Coordinator (ERC), who in turn will facilitate the issuing of warnings.

In this instance, the Emergency Management Joint Public Information Committee (EMJPIC) is able to assist. The function of this committee is to, when required, facilitate the provision of coordinated, timely, factual, authoritative and where appropriate, multilingual information and warnings to the public during major emergencies.

The EMMV acknowledges that in the initial stages of some emergencies, it is possible that there may be little or no warnings provided to agencies or the community.

### **3. Protocol**

The Protocol is based on an all-hazards approach. Taking such an approach will reassure the community that regardless of the emergency type, any alerts or warnings disseminated will be authoritative, consistently constructed, timely and appropriate. This is achieved through the fire agencies and VICSES use of the common warnings platform OSOM (One Source One Message).

The Protocol adopts a systems approach to provide timely and appropriate warnings to communities. The systems approach recognises that the intrinsically linked components of warnings rely on and build upon each other to ensure the timely and effective dissemination of advice and warnings to the community. The following seven elements are therefore to be applied in their entirety to ensure for an effective warning system:

1. Community preparedness
2. Situational awareness and analysis
3. Decision-making and authorisation
4. Message construction and multi modal dissemination
5. Management of warning consequences
6. Real-time monitoring
7. Real-time closure

A diagrammatic view of the warning process is provided at Appendix 2.

### **3.1. Community preparedness**

Whilst emergency service agencies can provide information and warnings to communities at risk of emergencies, the overall success of the warning is determined by the communities' ability to understand the warning and undertake subsequent action.

It is essential that communities understand their risk environment and know what to do on receiving a warning message. Empowering communities to act in a timely and safe manner will reduce the loss of life, personal injury and damage to property and infrastructure, and contribute to the effectiveness of any warning system.

Effective and on-going community education and preparedness programs emphasising the importance of practical and tested emergency plans and safety strategies are essential. Community education needs to exhibit a high level of collaboration between the community and the emergency management organisations.

As per the EMMV, agencies should, as far as possible, inform the community regarding warning systems and procedures likely to be used during an emergency. Warnings will be most effective, and reach the most people, when a combination of warning systems is used. This should form part of the community education process.

### **3.2. Situational awareness and analysis**

Emergency management organisations can obtain information about emergencies by various methods. These include but are not limited to:

- incident controllers
- personal observations
- monitoring systems
- local knowledge
- forecasts and predictions
- community
- media
- agencies

Once the appropriate authorities evaluate this information, it becomes intelligence. Situational awareness and analysis is an ongoing activity that should inform decision-making.

### **3.3. Decision-making and authorisation**

Activation of the Protocol will be dependent on a number of factors that will be informed by available information and intelligence.

Organisations may have in place pre-planned triggers<sup>1</sup> for activation and clear lines of decision-making and authorisation to ensure that timely, tailored and relevant warnings are provided based on the best available information at the time.

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<sup>1</sup> Agencies may consider development of matrix for activation triggers.

The primary responsibility for issuing information and warnings to the community lies with the incident controller, and in the event that he/she is unable to do so, the subsequent tiers of the control agency and then ERC.

All information and warning messages are to be authorised by the control agency at preferably the incident level however if necessary, at the regional or state level, prior to dissemination. The State Controller and/or Regional/Area of Operations Controller will be responsible for monitoring and ultimately ensuring that appropriate warnings for emergencies are initiated.

Underpinning the decision to warn, and the construction of warning messages, is an agencies' ability to rapidly analyse available intelligence, monitor emerging risks, predict future impacts and decide on the best course of action. Agencies should be mindful that bureaucracy does not impede the operational decision making processes.

Several factors need to be considered by the control agency when applying the Protocol and considering the most appropriate warning medium. These include but are not limited to:

- type of emergency, incident or threat
- communities at risk
- urgency/timeliness
- impact and threat to lives and livelihood
- consequences of information and warnings
- actions required of community
- authorisation
- post impact
- community behaviour and perceptions
- call to action

At the very minimum, the following is to be considered:

- certainty
- severity
- timeframes
- impact

Control agencies are to ensure that they liaise with relevant stakeholder and support agencies, utilising an Emergency Management Team where appropriate, that includes regular and timely information sharing with the ERC. Special consideration is also to be given to official warning agencies or individuals, such as the BOM, the Chief Health Officer or the Chief Veterinary Officer, to ensure that existing warning arrangements are utilised and that disseminated messages are consistent.

In the event of multiple types of incidents within relative proximity and which involve more than one control agency issuing warnings, the relevant ERC (State/ Regional/ or Municipal) is responsible for ensuring that warnings are co-ordinated. Dependent on the incident and its severity and scale, the coordination will occur at either the incident,



regional/area of operations or state level. A measure of coordination for the management of warnings issued must also be maintained within each agency.

### 3.3.1. Cross-jurisdictional considerations

Emergencies do not respect borders and may impact multiple jurisdictions. Each jurisdiction is responsible for engaging with other impacted jurisdiction/s to discuss cross-border issues and warning requirements.

For emergencies impacting on multiple jurisdictions, agencies will be responsible for engaging with other impacted jurisdiction/s to discuss cross-border issues and warning requirements.

These arrangements should mirror existing cross-boundary arrangements as far as possible, but need to take into account a number of particular considerations:

- Plan before an event using agency-to-agency contacts. Agencies are encouraged to undertake planning locally and between relevant state agencies on how a warning affecting both sides of the border will be managed. Planning should cover the decision-making, notification and management of issued warnings that affect multiple jurisdictions.
- Act with the urgency that the situation demands. Agencies should ensure that their operational protocols reflect the primary objective of the system. The principle to note is that **if an emergency is potentially life threatening - issue the warning**. Where practical, the agency issuing the warning should advise the other jurisdiction/s during the warning process that the emergency may or is impacting on that jurisdiction and that the warning issued has cross-border coverage. If early notification is not possible, information about the warning should be passed on as soon as practical.
- Work locally; inform centrally. Some agencies may operate the system on a decentralised basis, while others may retain a centralised model. Contact between state and incident control centres of neighbouring jurisdictions is essential in any use of the system across borders.

### 3.4. Message construction and multi-modal dissemination

It is important that sound judgement and effective decision-making inform the message content and that messages are disseminated using appropriate medium/s to maximise message saturation and penetration.

Warnings should, where possible, be simple and brief and utilise a range of dissemination methods. Consideration should be given to the differing communication needs of the relevant communities. Message construction and dissemination should consider:

- culturally and linguistically diverse (CALD) individuals or communities
- hearing impaired individuals or communities
- vision impaired individuals or communities
- Other vulnerable people

As an example, there are three distinct levels of alerts used by the fire agencies for community warnings within Victoria. The decision-making process will identify which of the following levels of alert will need to be issued to the community:

<b>Advice</b>	General information to keep you up-to-date with developments.
<b>Watch and Act</b>	It is <i>likely</i> you may be impacted by the emergency. You may be in danger and <u>should</u> start taking action to protect your life and your family.
<b>Emergency Warning</b>	You <i>will</i> be impacted by the emergency. You are in danger and <i>must</i> take action immediately. This message may be preceded by the Standard Emergency Warning Signal (SEWS).

Where a BOM warning has been issued, such as during flood and storm events, agencies disseminating that warning use BOM warning terminology precisely.

Agencies should note the requirement to down-grade or “close the loop” on warnings once the threat has passed. Fire agencies use Watch and Act or Advice message templates for these purposes.

Agencies are to consider outcomes from any relevant reviews such as the Molino Stewart *Review of Community Bushfire Warnings* (2011), ensuring they address relevant recommendations within agency protocols for community warnings.

### 3.4.1. Message construction

Warnings are intended to achieve two distinct outcomes:

1. to inform the community of an impending or current threat
2. to promote appropriate actions

Agencies need to be very clear about whether they need to achieve one or both of these outcomes when writing a warning. Messages should be worded to prompt a planned or intended community response and/or action.

The EMMV part 3.31 states that the content and format of the warning must:

- be simple, arresting and brief
- consist of clear language and avoid euphemisms
- contain explicit information
- be suited to the needs of the community

In addition to the above, warnings should

- be worded in accordance with advice from the relevant agencies, and
- utilise appropriate templates

Information contained within the warning should include:

- the type of emergency
- the location(s) of the area affected by the emergency

- the predicted time of impact of the emergency
- the predicted severity of the emergency
- how people should respond to the warning
- identify the agency providing the warning

Messages are to be constructed utilising available information, decision making and risk assessment tools. Agencies should, where feasible, undertake appropriate consultation with relevant partner and support agencies and incorporate their advice within the messages as appropriate. Agencies must however be mindful of the criticality of a timely warning to the community.

Warnings should reflect the principles outlined in the Commonwealth policy paper *Emergency Warnings – Choosing Your Words (2008)* and the *Australian & New Zealand Counter Terrorism Committee Language Project (2012)*.

In addition, the *Victorian Bushfires Royal Commission Interim Report (August 2009)*, recommends that all bushfire related warnings must use clear language, avoid euphemisms, and contain explicit information in relation to:

- the severity, location, predicted direction and likely time of impact of bushfires on specific communities and locations
- the predicted severity of impact of the bushfire and whether a specific fire poses a threat to human life.

The *Victorian Bushfires Royal Commission Final Report (July 2010)* provides the additional recommendation to enhance warnings to provide for timely and informative advice about the predicted passage of a fire and the actions to be taken by people in areas potentially in its path.

Agencies are encouraged to have pre-planned message templates to assist in the timely development and dissemination of warnings to the community. Templates will also assist in compliance with the *Australian Government Standard for the Common Alerting Protocol - Australia Profile (CAP-AU-STD, May 2012)* which provides the Australian community with a common standard for the dissemination of all-hazard alert and warning messages during any emergency.

### **3.4.2. Message dissemination**

There are a number of platforms/mediums that can be utilised to inform and/or warn the community of emergencies. These will vary depending on the type of emergency, community demographics, availability of warning systems and the action required from the community.

A multi-faceted warning approach is recommended to ensure maximum penetration and saturation. There are a number of platforms utilised to warn the community of potential or imminent emergencies, including but not limited to:

- Victorian Government department/emergency service agency websites
- official emergency broadcasters
- mainstream media outlets
- proactive telephony based, e.g. Emergency Alert via landline and SMS to mobile

- reactive telephony based information lines, e.g. Victorian Bushfire Information Line
- authorities' social media channels
- smart phone applications
- person-to-person (including doorknocks, community meetings, and virtual 'town hall' meetings conducted over live radio or web feeds)
- local automated warning systems, e.g. community sirens, roadside signage

Agencies must identify pre-planned dissemination methods to be utilised during an incident and shall have contingency plans in place in the event that the selected warning dissemination platform/system fails.

Existing warning dissemination arrangements should be pursued where appropriate. This may include utilising established communication and warning networks available to the sector, including BOM, local government networks, and through formal agreements with those broadcasters who have MOUs<sup>2</sup>.

Discretion rests with the local Incident Controllers to choose which emergency broadcasters are best placed to broadcast warnings in their area, depending on the emergency. It should therefore be noted that the media outlet that the community is directed to turn to for further information may vary, depending on local circumstances.

Consideration for the use of telephony based messaging should be based around intrusive alerting requirements. Further information on proactive telephony based warning is provided at Appendix 3.

Messages disseminated to the community must be consistent across the platforms utilised to minimise community confusion. Emergency Warnings are, where appropriate, to be preceded by the Standard Emergency Warning Signal<sup>3</sup> (SEWS). Agencies are to note that the control agency is responsible for the use of SEWS. Caution should be exercised to avoid the overuse of SEWS as this may lead to public complacency.

An Aide Memoir depicting important considerations for community warnings is provided at Appendix 4. The Aide Memoir should be modified to meet agency requirements and is to reflect available communication dissemination methods and procedures.

### **3.5. Management of Warning Consequences**

Agencies responsible for issuing warnings must give due consideration to the consequences of the warnings, especially in the case of recommending evacuation. These considerations should include the likely community response to the warning and the impact on other systems (such as websites, information phone lines and traffic management, etc) and arrangements implemented to accommodate these outcomes.

Some activities involving the management of warning consequences include updating information available on official websites, rostering additional resources to manage

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<sup>2</sup> Emergency broadcasting agreements can be found at the Fire Services Commissioners website – [www.firecommissioner.vic.gov.au](http://www.firecommissioner.vic.gov.au) (under Policies)

<sup>3</sup> The guidelines for the use of SEWS are in EMMV Part 8, Appendix 14

increased call volume, arrangements for the activation of a relief centre/s and road access to the relief centres, etc.

During the construction of the message, consideration should be given to the potential impact on Triple Zero. Messages should be clear and ensure that Triple Zero is not identified as the first point of contact for further information. Appropriate information must be available at the alternate information sites (radio, web etc) prior to the release of the warning to reduce the reliance on telephony information services.

Activities to manage the consequences of the warning should, where practicable, be performed prior to and/or concurrent to the message being disseminated to the community.

### **3.6. Real-Time Monitoring**

Agencies, where practicable and feasible, should monitor in real time the effectiveness of the dissemination of the warnings. This involves monitoring the effectiveness of the warning medium utilised and have redundancies in place in the event of failure, to ensure that the system has delivered the warning.

Where practicable and feasible, agencies should also monitor the impact of the warning. Real-time monitoring can assist agencies with situational awareness and identify the need for further messaging requirements (escalation or de-escalation of warnings) and actions and directions that might be required of the community.

### **3.7. Real-Time Closure**

Consideration of the status of the emergency should inform the need to advise the community that the heightened risk/threat situation has passed/ceased. The message is to be issued through the appropriate authorising channels utilising the relevant dissemination methods. Agencies should be mindful of the wording of the message as there may be residual sensitivities within the community as a result of the emergency.

## **4. Governance**

Control Agencies issuing the warning will be responsible for meeting the costs associated with providing that warning.

Agencies should ensure that they maintain accurate records of all decision-making activities and processes, messages disseminated and associated costs, and that these issues form part of each agency's debrief.

It should be ensured that post-disaster assessments by relevant agencies routinely review the effectiveness of warning systems, including the degree to which the warnings resulted in intended changes in behaviour, the appropriateness of information provided, the effectiveness of warning delivery methods, and the cost benefit and cost efficiency of the warning system.<sup>4</sup> This may form part of a broader lessons learnt/debrief process that could include more than one emergency.

Agencies should commit to oversight on shared warning systems through appropriate committees in order to share learnings, bring benefit to all organisations and improve future areas of investment.

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<sup>4</sup> Recommendation of the COAG Report on Natural Disasters in Australia (2002)

## 5. Appendix 1 – National Warning Principles & Process

In September 2008, the Ministerial Council for Police and Emergency Management – Emergency Management agreed to the following twelve principles for the development of a national framework on warnings for emergencies:

1. **Coordinated:** a warning system should avoid duplication of effort where possible and support a shared understanding of the situation among different agencies involved in managing the incident.
2. **Authoritative and accountable:** warnings are to be disseminated on the decision of an authorised person. Authorities should be able to interrogate the system components for later analysis.
3. **Consistent/Standards based:** the information content is coordinated across all of the mechanisms used for warnings. Messages must be consistent across different sources if they are to be believed by the general population. Conflicting messages tend to create uncertainty and will delay responsive action. Any relevant identified standards will underpin the agreed System Framework.
4. **Complete:** message content should include relevant pertinent details, including possibly a direction on the need to consult other sources, presented in a way that is easily and quickly understood by the population. This includes multiple languages in some cases, as well as the use of multi-media for those who are illiterate or people with a disability (eg. Hearing or vision impaired).
5. **Multi-modal:** warnings are to be disseminated using a variety of delivery mechanisms and in multiple information presentation formats that will, in some circumstances, complement each other to produce a complete picture, with planning and processes to allow for maximum reach to all members of the community and to provide for redundancies in the case of critical infrastructure failure (eg. Power or telecommunications).
6. **All hazards:** any emergency warning system developed will be capable of providing warnings, where practicable, for any type of emergency.
7. **Targeted:** messages should be targeted to those communities at risk in order to reduce the complacency that can result from people receiving warnings that do not apply to them – ‘over warning’.
8. **Interoperable:** has coordinated delivery methods, capable of operation across jurisdictional borders for issuing warnings.
9. **Accessible and responsive:** capable of responding to and delivering warnings in an environment of demographic, social and technological change. Recognise the criticality of adopting universal design and access principles, particularly in the development and acquisition of technologies.
10. **Verifiable:** the community is able to verify and authenticate the warnings to reduce incidents of accidental activations and prevent malicious attempts to issue false alerts to a population.
11. **Underpinned by education and awareness raising activities:** the system, any delivery mechanisms that constitute it and the language used in the warning messages it delivers, should be underpinned by appropriate education and awareness raising activities.

12. **Compatible:** with the existing telecommunications networks and infrastructure without adversely impacting on the normal telephone and broadcast system. The system should avoid any adverse operational, technical or commercial implications for the provision of current communications services to consumers and on the integrity of communications networks.

The states and territories agreed to these principles out of session.

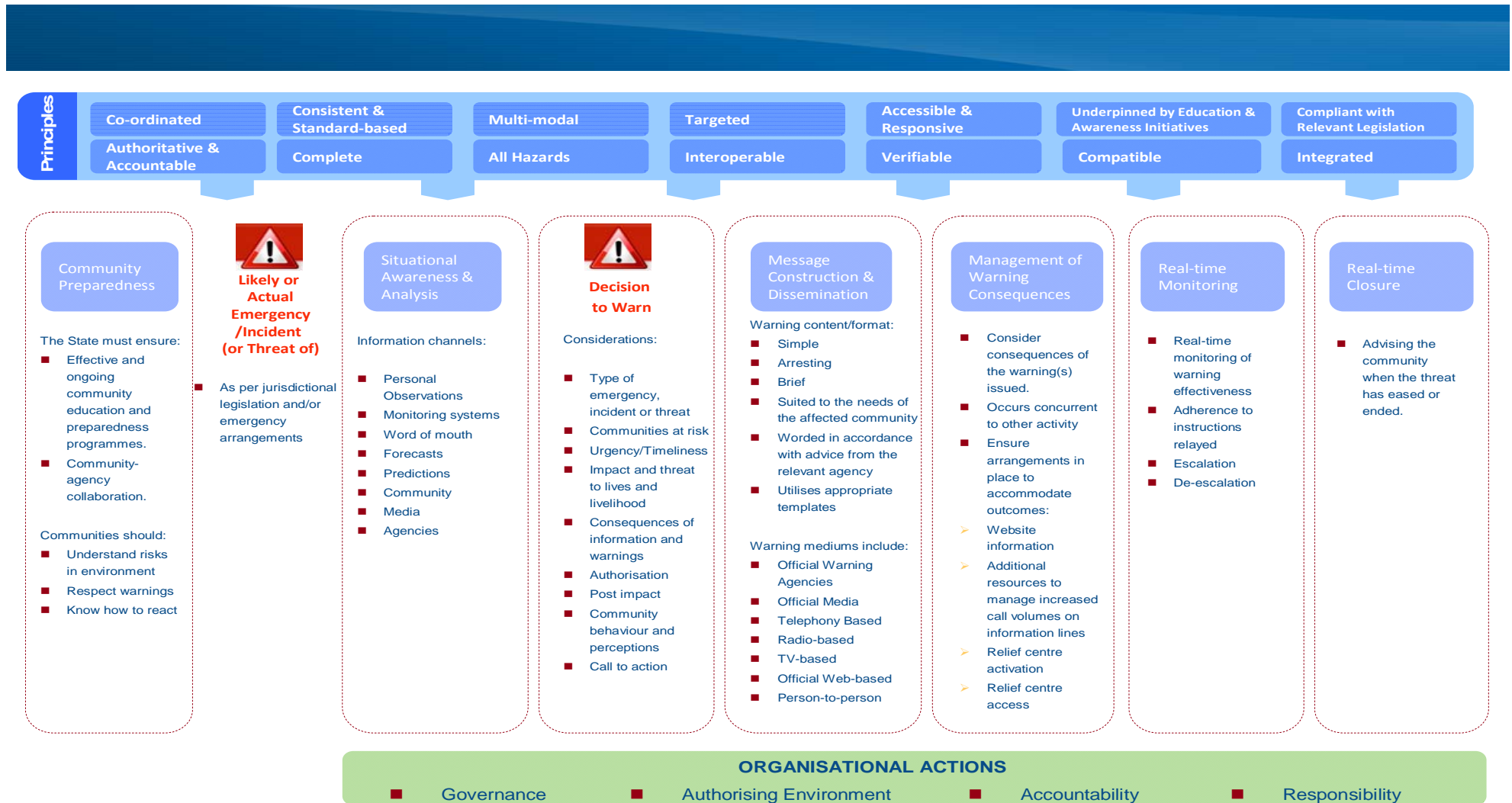
At the National Emergency Warning System Protocol Workshop in July 2009, representatives further agreed to expand the scope of the '12 Guiding Principles' to include the following two additional principles:

13. **Compliant with relevant legislation:** warnings should be compliant with relevant Commonwealth, State and Territory legislation, associated regulations and policy.
14. **Integrated:** warnings should be integrated to ensure timely notification to multiple organisational stakeholders and communication channels.

In accordance with the above 14 principles, the National Emergency Warning System Protocol Workshop developed and agreed to the national warning processes outlined on the following page. The process was validated at the October 2009 workshop.

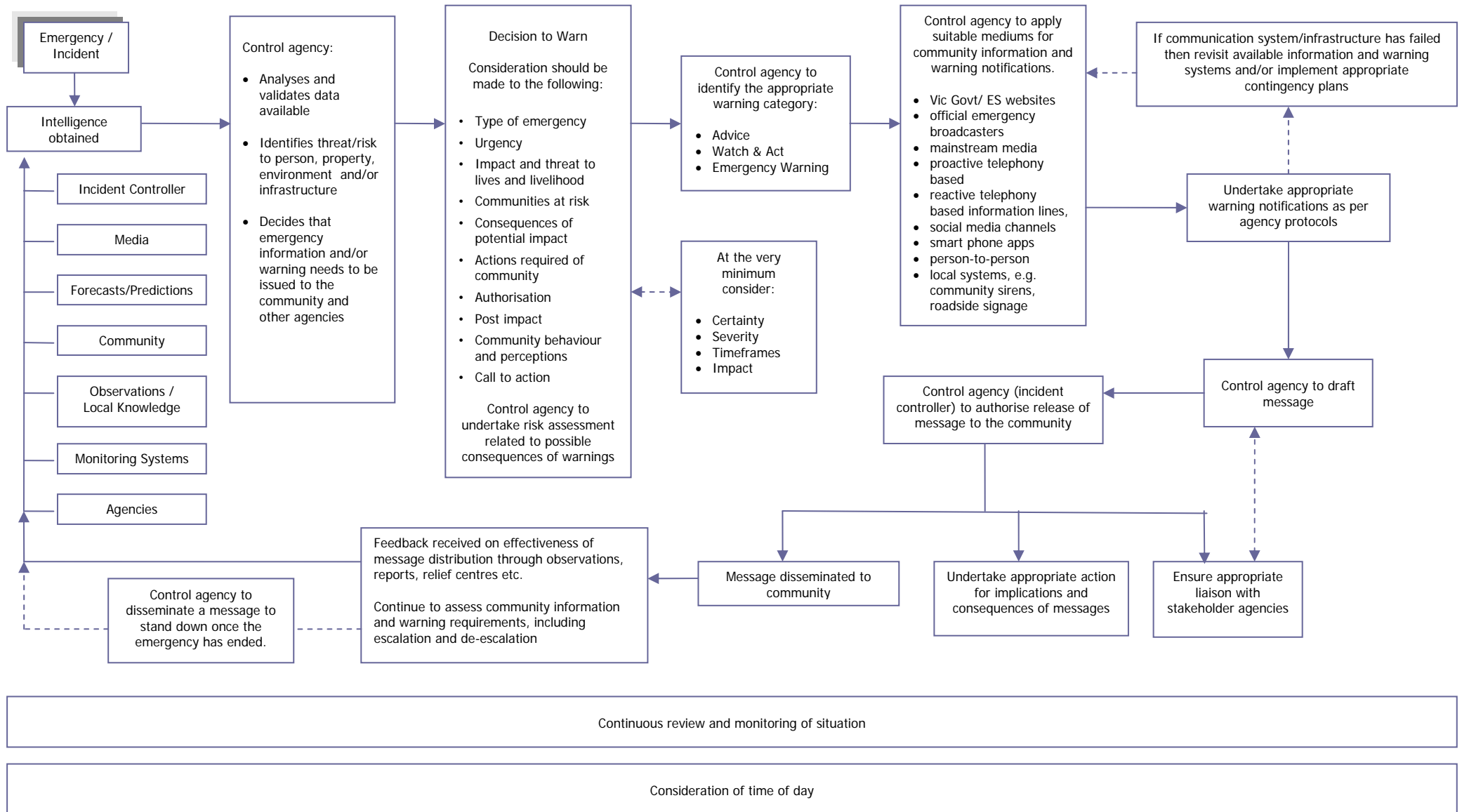


# National Warning Process





## 6. Appendix 2 – Victorian Warning Notification Process



## 7. Appendix 3 – Telephony Based Warnings

### 7.1. Background

In April 2009, following the devastating Victorian bushfires the Council of Australian Governments agreed:

*to take immediate steps to enhance Australia's emergency management arrangements through the development of a telephone-based warning system that will enable the States and Territories to deliver warnings to landline and mobile telephones based on the billing address of the subscriber to be operational by October 2009 and to undertake further research into a capability to deliver warnings based on the location of a mobile telephone<sup>5</sup>.*

Emergency Alert is the national telephone warning system and enables State and Territory emergency management agencies to send information during emergencies to the vast majority of individuals in potentially affected communities. The information is sent to mobile and fixed line telephones in geographically identified areas based on the Service Address. The service has recently developed the capacity for messaging to mobile phones based on their location.

Emergency Alert was realised following the Victorian Bushfire Royal Commission, becoming the first operational national telephone warning system on 1 December 2009. The system provides an intrusive large-scale warning capability, which was not available prior to 2009.

A Royal Melbourne Institute of Technology (RMIT) consolidated research study reviewed 14 major community safety research reports. The three high level findings were:

- Emergency Alert is proving itself a positive additional emergency warning medium.
- Awareness of Emergency Alert is high and there is a high level of satisfaction amongst message recipients, with most stating that the system fully met or exceeded their expectations.
- There is strong support for the utility of the Emergency Alert system in both disseminating warnings and prompting action.

### 7.2. Data Protection and Legislation

A legislative amendment to the Telecommunications Act 1997 (Cth) was required to enable access to this data for emergency warning purposes. The Telecommunications Act 1997 (Cth) (the Act) contains obligations regarding the use and disclosure of information from IPND, industry wide collection of all listed and unlisted phone numbers and subscriber information in Australia. Those obligations fall on all who use, access, receive or disclose IPND information.

The LBNS was created to protect phone subscriber's personal information but enable a regular data feed of IPND phone numbers and address data. The LBNS assigns each address a latitude and longitude value (geo-coding) that enables the LBNS to locate the list of telephone numbers within each defined geographic warning area.

The IPND information must only be used for the purposes allowed under the Act, that is:

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<sup>1</sup>COAG Communique 30 April 2009

- a) a purpose connected with persons being alerted to an emergency or a likely emergency; and
- b) the purpose of reasonable testing of whether, in the event of an emergency occurring, persons would be able to be alerted to that emergency ('permitted purposes').

This obligation equally applies to the use of LBNS data. Disclosures from the LBNS and to and from Emergency Alert will generally be allowed by s295W(3) of the Act, provided that the disclosure is for a permitted purpose. This allows the LBNS Contractor, upon receipt of a query, to provide the requested information to Emergency Alert. There are penalties for the use of the information for purposes other than those intended.

A Deed Poll User Agreement in relation to LBNS (User Agreement) outlines the use and disclosure conditions specified in the Act together with other additional compliance requirements. The User Agreement was signed by all jurisdictions before data in the LBNS was made available for a State or Territory's use. Schedule A of the User Agreement lists the positions Victoria nominated to receive, disclose and use the LBNS.

### 7.3. Emergency Alert

The Emergency Alert platform is underpinned by the following principles:

- be accessible, non discriminative and reach the vast majority
- intrusive
- carrier grade and fully integrated with the telephone network
- operate across all carriers – (all carriers deliver billing address only until Oct 2013 – Telstra currently only supply location based)
- not adversely impact operation of the telecommunications network
- be future proof
- not encroach unnecessarily on the privacy of individuals
- be secure, verifiable and able to be authenticated – through 0444 444 444
- provide reporting capabilities
- meet emergency service and system operational requirements e.g. intuitive user interface

The Emergency Alert solution is designed to deliver:

- a carrier grade solution
- high availability
- scalability
- redundancy
- flexibility
- a high level of security
- high performance
- fixed line congestion management

- business continuity
- disaster recovery capability
- jurisdictional segregation
- wide compatibility and enable integration into other systems as designed around open industry standards
- a solid foundation for future upgrades and enhancements

### **7.3.1. System Capability, Application and Performance**

Agencies are responsible for undertaking appropriate training and familiarisation activities to ensure users understand the functionality, capability and capacity of the system.

There is a comprehensive User Guide accessible via the help tab on the Emergency Alert Site, dedicated 24hr Service Desk and a stand-alone training site to further support registered users. The User Guide includes Recommended Use Guidelines to follow to optimise the performance of the system. The User Guide also outlines the technical configuration of Emergency Alert including supported system browsers, and minimum PC operating configuration to optimise performance.

The system does have some inherent limitations. These include:

- Capacity of existing telecommunications networks and infrastructure
- capacity of local telephone exchanges
- existing mobile phone coverage
- integrity and accuracy of data within the Integrated Public Number Database (IPND). The Location Based Number Store (LBNS) is the datasource for Emergency Alert and uses information from IPND
- for location based SMS - the last known location of the mobile phone handset may be up to an hour old. The network updates the location when the handset interacts with the network e.g. makes or receives a call, sends or receives an SMS. If there have not been any network interactions the network updates the handset location every hour (more frequent updates would overload the network)
- restricted access to data due to privacy legislation

A number of factors may affect message dissemination, including:

- the length of the message
- the number of retries configured for fixed line services
- the Campaign Validity Period
- the time taken to authorise a Campaign
- fixed line congestion
- SMS network load
- number of concurrent Campaigns
- size of the Campaign

The Emergency Alert system will continue to be examined in the context of continuous improvement and improved effectiveness. The most significant recent improvement is the ability to send messages to mobile phones based on the last known location of the mobile phone.

This improvement to Emergency Alert was operational on Telstra's networks on 21 November 2012. Optus and Vodafone have committed contractually to having the technology implemented and integrated with Emergency Alert for 31 October 2013.

#### 7.4. Decision to utilise

The decision to use Emergency Alert, whilst dependent on the situation at the time, is more likely to be used as a warning medium when one or more of the following apply:

- there is an actual or imminent threat to life
- it is deemed the best way of warning the community in the event of an actual or likely emergency
- circumstances exist that a reasonable person would consider exceptional
- alternate mediums have been considered and alone may not achieve objective(s)
- time is of the essence and specific action following receipt of the warning is required
- there is a justifiable and permissible reason to access the IPND data
- defined geographical area
- use is lawful, proportionate and necessary based upon the information the agency knows or reasonably believes is true

The following, based on the Victorian fire agency alert levels, provides guidance on when a telephony based warning may be utilised:

**Emergency Warning:** most likely that telephony system will be used to issue Emergency Warnings

**Watch & Act:** telephony system may be used to disseminate Watch messages

**Advice:** unlikely that telephony system will be used to disseminate Advice messages

Where a BOM warning has been issued, agencies disseminating that warning through telephony should use BOM warning terminology precisely.

Emergency Alert has a number of different campaign modes available. These are voice, SMS – Service Address and SMS Location Based. The user should choose the campaign mode(s) and/or change the default mode based on the circumstances and operational requirements keeping in mind that SMS – Location Based until 31 October 2013 covers mobile devices on Telstra's networks only.

Agencies should be mindful that overuse of Emergency Alert may contribute to community complacency and/or the community becoming desensitised to the importance of the warning content.

Promotional and marketing messages should not be disseminated through Emergency Alert.

The decision to utilise the telephony system will be the responsibility of the respective agencies and will be defined by the emergency; and operational and warning requirements. Agency protocols are to contain sufficient information and appropriate training to ensure that relevant staff are aware of system capacity and capability.

Agencies are to ensure that they maintain accurate records of all decision-making activities and processes, messages disseminated and associated costs. Agencies will be responsible for meeting all costs associated with providing a telephony warning.

## 7.5. Message construction

Users of Emergency Alert need to ensure that the message content considers the limitation of the system.

- SMS - 160 characters maximum (includes spacing)
- Voice - 4000 characters, equivalent of approximately four minutes. (An average message length is approx 30 secs. Longer messages may unnecessarily congest the network)

Emergency Alert contains templates developed by Agency Authorisers. The templates contain generic content for specific hazards with variable fields compatible with the Common Alerting Protocol<sup>6</sup>. Below is an example template.

Message Type	Severity	Voice Message	Text Message
Bushfire	Warning	Emergency. Emergency. This is a Bush Fire Emergency Warning message issued by the CFA. Residents in the //LOCATION// and surrounding areas should seek shelter now. Further information is available via the media, or go to <a href="http://www.cfa.vic.gov.au">www.cfa.vic.gov.au</a>	Bushfire Emergency Warning from CFA. //LOCATION// and surrounding areas. Seek shelter now. Check local radio or <a href="http://www.cfa.vic.gov.au">www.cfa.vic.gov.au</a>

\*Voice Message content uses phonetic spelling

Caution needs to be exercised when updating existing templates as they may be utilised by multiple agencies within the jurisdiction. Ideally, agencies within each jurisdiction should come to an agreement on a method to ensure each agencies' templates are readily identifiable.

Users should ensure they listen to the voice playback prior to submitting the message (e.g. residents may sound better spelt residents).

## 7.6. Message dissemination

Warnings disseminated through the telephony based system should:

- define geographical area for telephony warning dissemination
- agree to mode of dissemination i.e. mobile based and/or landline based
- undertake telephony messaging procedures as outlined in the Telstra telephony warning user guide
- ensure that other mediums that are referenced have the correct information

<sup>6</sup> Common Alerting Protocol – simple format used for exchanging all hazard emergency alerts and public warnings. CAP allows a consistent warning message to be disseminated simultaneously over a range of technology networks and warning mediums, thus increasing warning effectiveness while simplifying the warning task. [CAP Australian Profile (CAP-AP) V1.0]

## 8. Appendix 4 – Warning Aide Memoir

<b>Event Type</b>	Bushfire / HAZMAT / Storm / Flood / etc
<b>Event Category</b>	(fire agencies) Emergency Warning / Watch & Act / Advice
<b>Urgency</b>	Immediate / High / Medium / Low
<b>Certainty</b>	Observed / Likely / Possible
<b>Severity</b>	(Fire agencies) Code Red / Extreme / Severe / Very High / High / Low-Medium
<b>Timeframes</b>	When is the emergency event likely to impact
<b>Impact</b>	What is the likely impact to communities
<b>Sender</b>	CFA / DEPI/ MFB / VICPOL / SES / DHS
<b>Headline</b>	Event Type + Event Category
<b>Incident Information</b>	<p>(Fire agencies) There is a [small / medium / large], [slow / fast] moving bushfire in [location name]. It is travelling in [x direction, towards x]. The fire is expected to impact anytime within the next two hours.</p> <p><i>[Have a range of pre-planned scenarios available to assist in messaging.]</i></p>
<b>Instructions</b>	<p>(Fire agencies) If you don't have a bushfire survival plan or your plan is to leave, leave now only if the path is clear.</p> <p><i>[Have a range of pre-prepared messages available to assist in messaging.]</i></p>
<b>Communication Methods</b>	<ul style="list-style-type: none"> <li><input checked="" type="checkbox"/> Official warning agency/s _____</li> <li><input checked="" type="checkbox"/> Official broadcasting agency's _____</li> <li><input type="checkbox"/> Print media</li> <li><input type="checkbox"/> Face-to-face</li> <li><input type="checkbox"/> Door knocking</li> <li><input type="checkbox"/> Visitation programs</li> <li><input type="checkbox"/> Community meetings</li> <li><input type="checkbox"/> Community groups</li> <li><input type="checkbox"/> Localised representation and announcements i.e. using PA systems on streets</li> <li><input type="checkbox"/> Letter drops</li> <li><input type="checkbox"/> Signage</li> <li><input type="checkbox"/> Local automated warning systems i.e. sirens</li> <li><input checked="" type="checkbox"/> Web based</li> <li><input checked="" type="checkbox"/> Information phone lines</li> <li><input checked="" type="checkbox"/> Telephony</li> </ul>
<b>Likely consequences of warning being issued?</b>	<ul style="list-style-type: none"> <li>• Significant website traffic</li> </ul>

	<ul style="list-style-type: none"> <li>• Significant info line enquiries</li> <li>• Increased media coverage</li> </ul>
<b>Stakeholder agencies consulted</b>	<ul style="list-style-type: none"> <li><input type="checkbox"/> DSE</li> <li><input type="checkbox"/> CFA</li> <li><input type="checkbox"/> MFB</li> <li><input type="checkbox"/> VICPOL</li> <li><input type="checkbox"/> Local Government</li> <li><input type="checkbox"/> DHS</li> <li><input type="checkbox"/> DPI</li> <li>etc</li> </ul>
<b>Sign-off Incident Controller / Agency Regional Coordinator</b>	
<b>After initial dissemination of message, consider:</b>	
<input type="checkbox"/>	Further messaging requirements
<input type="checkbox"/>	Warning closure



## 9. Appendix 5 - Flow of IPND information to enable the delivery of telephone-based emergency warning messages by States and Territories

