Emergency Management Operational Review 2014-15

Part 2: Themes and Insights

Contents

Emergency Management Operational Review 2014-15
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Introduction

The *Emergency Management Operational Review 2014-15* is a summary of the operational activities undertaken by emergency management personnel across the 2014-15 financial year. This report supports the continuous improvement of the sector by sharing lessons.

This report is divided into two parts. *Part 1: Overview and Case Studies* includes an overview of the weather, emergency management activities carried out during the 2014-15 financial year, and a set of case studies that demonstrate the variety of emergencies managed by emergency management personnel in Victoria.

Part 2: 2014-15 Themes and Insights includes insights based on observations from emergency management personnel regarding the management of Class 1 emergencies. Observations were analysed for trends, which can be divided into two categories:
- Predetermined themes – identified in the *2014-15 Guidelines for Debriefing*[1] as a focus for regional multi-agency end of summer season debriefing.
- Additional themes – identified through the data analysis process.

Background

In previous years, the *Post Season Operations Review* described the operations of fire services across the fire danger period. In 2014, the *Fire Season Overview and Narrative* was also released to provide a description of the season and the emergencies that occurred.

The Inspector-General for Emergency Management (IGEM) reviewed the progress of the actions in the *Post Season Operations Review Fire Danger Period 2013-14*, along with actions identified in the Community Reports into the Goongerah-Deddick Trail Fire and Mt Ray-Boundary Track Fire (January-March 2014). In October 2014, IGEM published the status of these actions and further recommendations in the *2013-14 Fire Season Compliance Report*. The status of these actions is currently under review and a subsequent report will be released in August 2015.

This report, the *Emergency Management Operational Review 2014-15* supersedes the *Post Season Operations Review* and the *Fire Season Overview and Narrative*. This document moves towards a broader focus of:
- Year-round – broadened timeframe from the fire season to financial year,
- Multi-hazard – expanded beyond bushfire incidents,
- All-phases – expanded beyond response only activities, and
- Multi-agency – expanded beyond responder agencies.

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[1] 2014-15 Guidelines for Debriefing provides guidance for responder agencies on conducting debriefs and gathering review information over the summer emergency season. The State Review Team approved this document on 28 January 2015.

> "The purpose of this report is to provide insights and suggested treatments relating to key themes identified during activities in the emergency management sector across the 2014-15 financial year to inform continuous improvement processes."

Victoria Storm Response - February 2015

Purpose

The purpose of this report is to provide insights and suggested treatments relating to key themes identified during operational activities in the emergency management sector across the 2014-15 financial year to inform continuous improvement processes. This document supports Part 1, which provided an overview of the operational activities in the emergency management sector across the 2014-15 financial year.

Scope

The scope of this report includes operational activities within the 2014-15 financial year. The information provided in this report reflects the activities overseen by the State Review Team (SRT) during that time.

The information presented in this section of the report primarily relates to response activities relating to Class 1 emergencies because this was the focus of the information provided to the SRT. Efforts are being made to expand the focus of the provided information over the 2015-16 financial year.

The SRT is the overarching leadership group that provides guidance and coordination of review, debrief, monitoring, lessons management activities and performance improvement across the emergency management sector for all hazards. The SRT's primary objective is to promote consistent sector wide continuous improvement in a coordinated and effective manner.

While there is a focus on the activity of responder agencies relating to Class 1 emergencies, other government departments and emergency management partners have also provided input. Organisations that contributed and supported the development of this report include:
• Country Fire Authority (CFA),
• Victoria State Emergency Service (VICSES),
• Department of Environment, Land, Water and Planning (DELWP),
• Metropolitan Fire Brigade (MFB),
• Victoria Police (VicPol),
• Department of Health and Human Services (DHHS),
• Red Cross (RC),
• Ambulance Victoria (AV)
• Local Government Victoria (LGV)
• Municipal Association of Victoria (MAV)
• Local municipalities, and
• Inspector-General Emergency Management (IGEM – Observer/Adviser).

On 1 January 2015, Machinery of Government changes came into effect altering the names and portfolio responsibilities of Victorian government departments. This report uses the current names of departments and portfolio areas, even where the emergency activities were carried out prior to the Machinery of Government changes (e.g. DELWP).

Process

During the 2014-15 financial year, observations were collected from all tiers of emergency management through individual observation collection, monitoring, debriefing and review activities. The SRT supported these activities and collated the data. This data set was analysed for trends and assessed for action. This process is shown in Figure 1.

A summary of the weather and operational activity across the financial year and case studies are presented in *Part 1: Overview and Case Studies*. This report presents the insights that were identified through the analysis.

Capturing Observations

Observations were collected from all tiers of emergency management through the following evaluation activities:

- *Individual observations* – collected through the Observation Sharing Centre, available online through the Emergency Management Portal[1].
- *Monitoring* – included Real Time Performance Monitoring (RTPM – response focus), Strategic Emergency Management Assurance Team (SEMAT – coordination focus) reporting, and Real Time Evaluation (RTE – relief focus). This year saw a stronger focus on multi-
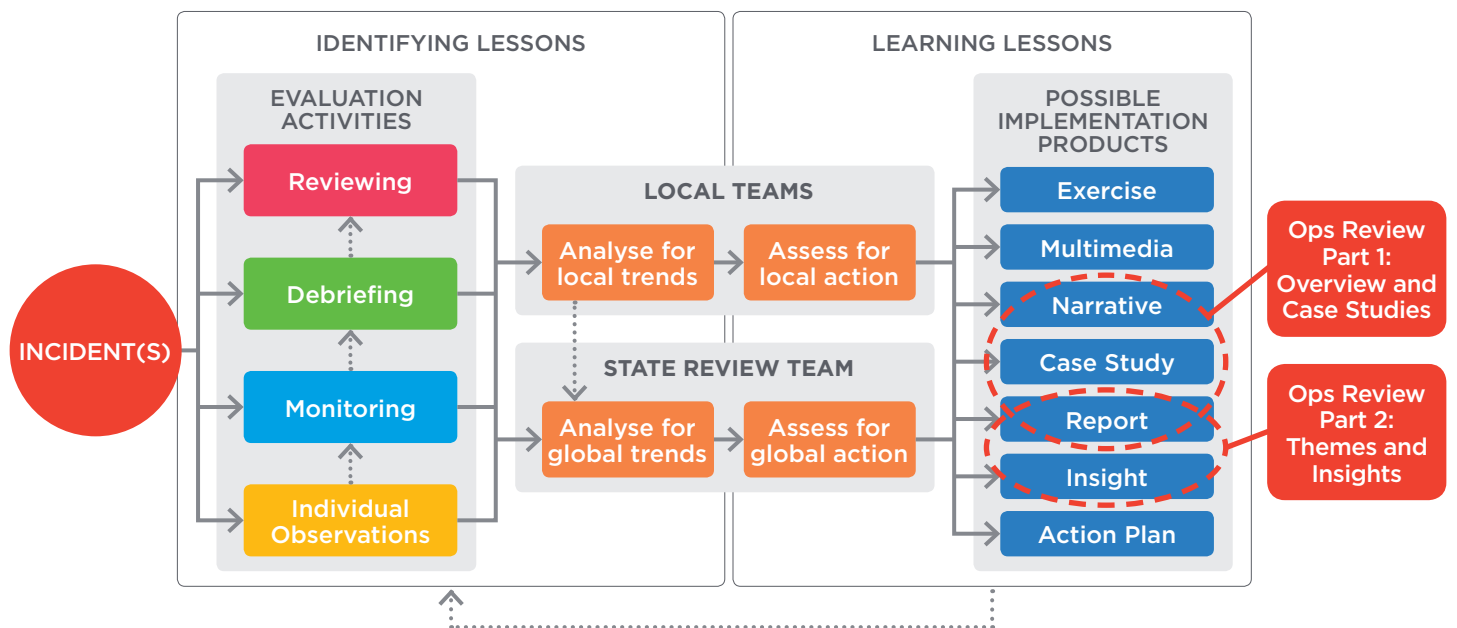

Figure 1: Process for identifying and learning lessons

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[1] Emergency Management Portal is a web based entry point for emergency management personnel to access information and systems using any internet connected device. It provides direct links to current operational information and a range of common applications including EM-COP, EM Knowledge, EM webmail, eMap and Fireweb. The Portal can be accessed at http://portal.em.vic.gov.au.

agency collaboration for real time monitoring and data collection of region and incident management. This work was supported by an updated *Joint Standard Operating Procedure J12.01 - Real Time Performance Monitoring - Bushfire* and updated RTE documentation, which was used during the RTE activation for the Docklands Fire.

- *Debriefs* – Formal debriefs and After Action Reviews (AARs) gathered observations at the end of a shift, tour of duty, incident, campaign or season. The *2014-15 Guidelines for Debriefing* was developed to provide guidance on how regional debriefing would occur in Victoria for Class 1 emergencies.

- *Reviews* – A number of ad hoc reviews were undertaken during 2014-15. Reviews were used to identify insights from specific incidents that were unique or to explore gaps in policy or practice.

Local teams and governance groups (e.g. crews, emergency management teams, regional control teams) analysed the data they collected to identify locally relevant insights and actions required to contribute to continuous improvement. These actions are locally coordinated, implemented, monitored and reported. In some cases, these evaluation activities led to the development of a case study that was included in Part 1.
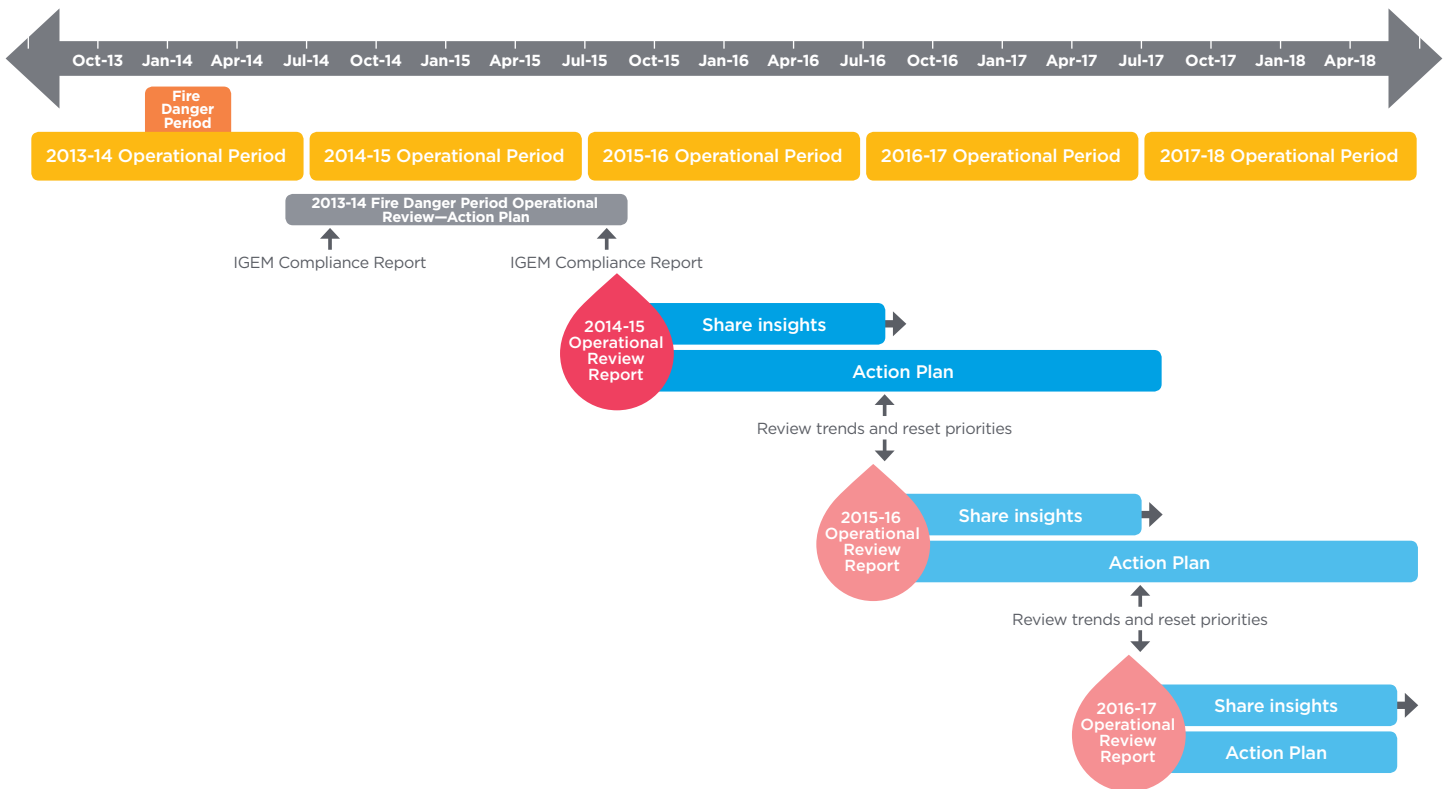

Figure 2: Long-term timeline for Operational Review report outcomes

Victoria's Deployment to Western Australia Fires - February 2015

Analysing for Trends

In addition to local analysis and action, the SRT collated the information from all tiers of emergency management, and analysed for insights and trends. Insights were based on multiple observations relating to a theme, usually collected from more than one incident and through more than one evaluation activity. This analysis provided insights into aspects that went well and areas for improvement across 11 themes.

Emergency management personnel and the SRT have identified a range of suggested treatments for each theme relating to the identified insights. In many cases, insights and treatments relate to an ongoing area of work where they will be used to inform future developments and planned actions.

Not all suggested treatments can be actioned or implemented immediately. They will be prioritised based on risk and some may be postponed or implemented through a staged approach. Where an insight requires action due to an issue of extreme risk, it will occur in a very short timeframe. For all other insights, actions will be determined based on appropriateness, strategic fit, resource capability and timeframes of suggested treatments. This will ensure that the insights lead to real action that creates lasting behaviour change.

Assessing for Action

The SRT will consult with subject matter experts to review the suggested treatments in this report and develop an action plan. An action plan that determines what actions will be undertaken and timeframes will be presented to the Emergency Management Commissioner (EMC) and Agency Chiefs for approval.

The insights identified in this report, and any related actions, will become part of a two-year rolling cycle of learning and improvement (as shown in Figure 2). This will support continuous evaluation activities and improvement processes to occur throughout the year, with insights incorporated into emergency management planning across the sector.

Implementing and Monitoring

The SRT will support the implementation of the action plan by developing and disseminating supporting materials and implementation products. Some learning materials already produced and disseminated include the case studies included in *Part 1: Overview and Case Studies* (locations of publication included in the case study - source).

Information included in this report will also be shared with subject matter experts, through organisational networks, and with various committees, including the Regional Preseason Briefing Steering Committee to inform ongoing briefing activities.

The SRT, with support from IGEM, will monitor the progress of the action plan.

"The insights identified in this report, and any related actions, will become part of a twoyear rolling cycle of learning and improvement processes."

Structure of this report

This report addresses two types of themes:
- Predetermined themes were identified in the *2014-15 Guidelines for Debriefing* as a focus for regional multi-agency end of summer season debriefing. Regional Debrief Coordinators were requested to choose two predetermined themes and two local themes to discuss at debriefs.
- Additional themes were identified through the data analysis process.

For each theme, the following information is provided:

Introduction

Summary of the key aspects of the theme in the Victorian emergency management context.

Background

Short history of the theme, including any relevant findings from previous operational reviews.

State Control Centre - Interstate and International Deployments

Insights – what went well

Insights identified through the data analysis process relating to what went well. These are elements that should be sustained and shared. Insights are drawn from a data set of subjective observations provided by individuals or groups.

Insights – Learning opportunities

Insights identified through the data analysis process relating to learning opportunities for the future. These are elements that are being or should be addressed. Insights are drawn from a data set of subjective observations provided by individuals or groups.

Suggested Treatments

Possible options or actions that could be undertaken to treat or address the insights. These may include ways to address gaps in performance or ensure that high performance is maintained.

Many of these treatments have been suggested by personnel who contributed observations for analysis. In many cases, insights will relate to an ongoing area of work where they will be used to inform future developments and planned actions. The cost benefit of each treatment must be assessed before decisions are made about which actions will be undertaken.

Further information

Documents, reports, case studies, etc. relating to the theme.

Predetermined Themes

Incident Management Team (IMT) Relocation

Introduction

In some circumstances, an Incident Controller (IC) and IMT need to relocate from one Incident Control Centre (ICC) to another. These circumstances include where the incident focus had moved from the area of initial impact (such as during a fast moving bushfire or during the downstream movement of a flood) or where the needs of the IMT have outgrown the capacity of the current ICC. Relocation may include the transfer of control to another IC and IMT, who may have a better understanding of local issues.

Background

Due to further changes and clarifications, transfer of control continues to be a key theme that requires ongoing emphasis and improvement. *Joint Standard Operating Procedure J03.15 - Transfer Of Control and IMT Relocation* has been released and outlines the procedure and considerations for relocating an IMT. Key success factors of relocating control from one ICC to another have been identified:

- Planning to ensure the accepting ICC has the resources to manage the incident.
- Timing to ensure the transfer is complete prior to critical periods of the event.
- Communication to ensure decisions and plans are shared effectively and widely.
- Understanding the impacts of an event crossing boundaries, including ICC footprints, municipalities, Victorian government regions and agency districts.

2014-15 Insights

What went well?
1. Effective communications between regions and shared situational awareness ensured appropriate and timely decisions about transfer of control. Regions discussed how IMT relocation would occur and the role of regional control during IMT relocation.
2. Exercises occurred with a focus on IMT relocation.
3. When transfer of control was enacted it was generally well managed and effective.

Learning Opportunities
1. Transfer of control needs to be undertaken at earliest convenience but there are inconsistencies in how and when transfer of control occurs.
2. Some issues still exist when working within an ICC footprint that crosses multiple boundaries (e.g. Municipality) and ensuring timely and accurate information is shared between all locations.
3. Communications with potential incident EMT members can sometimes be delayed or disrupted when transfer of control occurs.

Suggested Treatments

- Regions to develop consistent approaches to transfer of control.
- Document and share best practise to support the consistent application of JSOP03.15.
- Educate ICs about the importance of timely communication with potential incident Emergency Management Team (EMT) members when transfer of control occurs to ensure a shared awareness of control arrangements and locations.

Further Information

EM Knowledge > Doctrine > JSOPs
Joint Standard Operating Procedure J03.15 - Transfer of Control and IMT Relocation

EM Knowledge > Reviews-Lessons > Learning Products > Case Studies
Transfer of Control: between ICCs Case Study

Resource Management

Introduction

Based on recommendations from the *Post Season Operations Review 2013-14,* actions were developed to improve resource management into the future. Three multi-agency workshops were held in May and June 2014 with representatives from CFA, DEPI (now DELWP), MFB and VICSES to review *Joint Standard Operating Procedure J03.09 - Resource Request Process* and provide guidance on the enhancements for the State Resource Request System (SRRS). In October 2014, the reviewed and updated JSOP03.09 was released. In addition to these activities, lessons from the 2013-14 fire season were incorporated into the training of State Control Centre (SCC) Resources unit and IMT personnel as part of their continuous improvement program.

The 2014-15 pre-season briefings included a 90-minute discussion based exercise workshop session where resource management was one of the key themes discussed. Guidance for Regional Controllers in relation to readiness resourcing was provided through updated *Local Mutual Aid Plans*, *Joint Standard Operating Procedure J02.03 - Incident Management Team – Readiness Arrangements for Bushfire* and *Joint Standard Operating Procedure J02.06 - Readiness Arrangements - Aviation Resources (Bushfire)*. It has been identified that there is more work to be completed to ensure further improvement and efficiency into the future.

Background

The extensive level of fire activity across the state throughout the 2013-14 fire season created significant demands on the resources of fire services and its emergency management partners. In particular, there were a number of campaign events and the Hazelwood Hazmat/Fire. Resource personnel at the incident, regional and state levels worked in excess of six months, under intense workloads and pressure, to provide the necessary people and equipment to fires and emergencies. The high level of emergency management activity presented opportunities for the state to identify a range of areas for improvement, as well as sharing successes.

2014-15 Insights

What went well?

1. Clear intent was in place to support Joint Standard Operating Procedures (JSOPs). In addition, Regions were generally able to meet JSOP 02.03 readiness requirements, with some limitations at higher levels.
2. Most Districts had pre-planned strike teams broken down into both local and long haul to ensure efficient activation when required.
3. First response to incidents was generally integrated, rapid, aggressive and safe. This outcome was supported by strong weight of initial attack and effective predetermined dispatch (PDD) of aircraft (see Aviation Section).
4. Regions and Districts were in regular contact with adjoining Regions and Districts to ensure they had

Victoria's Deployment to New South Wales Storms - April 2015

"In October 2014, the reviewed and updated SOP J03.09 was released. In addition to these activities, lessons from the 2013-14 fire season were incorporated into the SCC Resources unit and IMT training as part of their continuous improvement program."

a joined up approach to resource management during peak times. In particular, the Metropolitan regions collaborated effectively to ensure efficient shared resourcing.

5. Regional Human Resource (HR) plans were in place prior to the Fire Danger Period (FDP) and were monitored to ensure Regions were aware of any short falls at local, incident, district, or region levels.

Learning Opportunities

1. Regions and Districts need to ensure HR planning occurs with adequate engagement of personnel and their line managers.
2. Working with private fire fighting appliances on the fire ground requires greater integration and awareness to ensure safety of all personnel.
3. Greater transparency of regional capacity and workload would improve sharing of resources across regions to support efficiency of response to multiple incidents.
4. Further work is required to improve clarity, education and awareness of municipality roles and responsibilities in resource management.
5. Some regions have limited capacity to meet resourcing levels prescribed by JSOP2.03 at Severe Fire Danger Rating (FDR) and above.
6. Many local councils have a limited capacity to resource emergency management positions at the incident and region levels, particularly in more remote areas of Victoria.

Suggested Treatments

- Review the readiness arrangements included in JSOP02.03, particularly the number and levels of

readiness for ICC footprints, and amend where possible.
- Review the SRRS to ensure it meets all agency and hazard needs.
- Reinforce the requirement for HR planning at Region and District level and discussions to be held with personnel and their line managers.
- Consider how to ensure improved integration and awareness of private fire fighting appliances on the fire ground.
- Consider further clarification and education of all emergency management personnel about the role and responsibilities of municipalities, particularly in relation to resource management.
- Encourage regions to adopt an agile and collaborative approach in managing resourcing constraints, particularly in resourcing incident management teams.

Further Information

EM Knowledge > Doctrine > JSOPs
Joint Standard Operating Procedure J02.03 – Incident Management Team – Readiness Arrangements for Bushfire

Joint Standard Operating Procedure J02.06 – Readiness Arrangements – Aviation Resources (Bushfire)

Joint Standard Operating Procedure J03.09 – Resource Request Process

EM Knowledge > Reviews-Lessons > Learning Products > Case Studies
Regional Readiness and Response Case Study

Traffic Management Points (TMPs)

Introduction

Traffic Management Points (TMPs) are established to safeguard the community and emergency management personnel by regulating the flow of road traffic into an area where an emergency has occurred, is presently occurring, or has the potential to occur. TMPs may be maintained for up to several weeks following an emergency because of continuing health and safety concerns, or to facilitate investigation of the affected area by emergency services personnel and police.

Background

TMPs are intended to safeguard and reduce potential risks to communities. However, the 2013-14 fire season highlighted that TMPs were an ongoing source of frustration for community members across the state, especially those who want greater access and egress to protect their properties, provide care and medicine to others, and feed or attend to injured livestock. The main issue identified was the subsequent management and removal of a TMP after the passage of a fire. Animal welfare was another issue identified, and in particular, access to feed or move stock.

There is often an inherent tension between community safety and other community needs in relation to TMPs. The existing TMP guidelines and procedures consider the needs of people to access an area while taking into account the relative safety of doing so.

In 2013-14, a number of community reports and the *Post Season Operations Review Report 2013-14* outlined actions in relation to TMPs, which have been worked on by the agencies over the past financial year. A review of the *Guidelines for the Operation of Traffic Management Points During Class 1 Emergencies* was completed and implemented for the 2013-14 summer season.

2014-15 Insights

What went well?

1. Personnel reported that TMPs were generally effective in providing rapid and safe access for responders. Traffic management was reported as generally appropriate, closely monitored and closures were reassessed in a timely way.
2. There was better engagement of experts across agencies and linkages to local knowledge. This worked particularly well when animal welfare experts were engaged early and integrated into the incident management team (IMT).
3. Greater understanding of resourcing to deal with issues around TMP has removed some frustrations.
4. The role of Traffic Management Manager worked well when established. There appeared to be improved links between Incident Controllers (ICs) and Traffic Management Managers, as well as a better understanding of the role within VicPol.

> "TMPs are established to safeguard the community and emergency management personnel by regulating the flow of road traffic into an area where an emergency has occurred, is presently occurring, or has the potential to occur."

Moyston Fire Response - January 2015

Learning Opportunities

1. Responder agencies and VicPol need to continue to work together at the incident and region levels to ensure adequate and consistent processes are in place to support information flow and timeliness of decisions in relation to TMPs.
2. ICs need to engage Traffic Management Managers early to ensure the planning for establishing and removing TMPs is integrated into the broader incident management planning processes.
3. Changes in incident management and traffic management personnel in different shifts can lead to inconsistent decisions relating to traffic management (e.g. between night and day shifts).
4. There remains some misunderstanding of TMP processes by some incident management personnel, particularly those in functional unit roles.
5. Community understanding of the role of TMPs could still be improved.
6. Welfare of emergency management personnel at TMPs needs to be improved, including rotation of staff, access to bathrooms, water, etc.
7. There have been some issues relating to media access through TMPs, including lack of understanding of what level of access media require and consistency of information checking (e.g. expiry dates).

Suggested Treatments

- Review the training and education needs of all IMT roles regarding TMP processes and the implications for communities.
- Consider developing exercises with a focus on TMPs and timely reduction in traffic management restrictions.
- Reinforce the need to ensure traffic management is a standing agenda item at Emergency Management Team meetings.
- Consider the need for broader public education on TMPs and roles, particularly with potentially affected communities.
- Review the TMP Reference Card and Guidelines to consider common mistakes and misconceptions for emergency management personnel.

Further Information

EM Knowledge > Doctrine > Technical > IMT Toolbox
Guidelines for the Operation of Traffic Management Points During Class 1 Emergencies

EM Knowledge > Doctrine > JSOPs
Joint Standard operating Procedure J03.10 – Traffic Management

EM Knowledge > Reviews-Lessons > Learning Products > Case Studies
Fires in Hume Region Case Study

Evacuation

Introduction

Evacuation is a risk management strategy that may be used to mitigate the impacts of an emergency by moving people to safer locations. All five stages of evacuation, as well as the evacuation of vulnerable people, need to be carefully and comprehensively planned for, exercised and underpinned by best practice evacuation planning principles.

Background

Seven fires throughout the 2013/14 summer emergency season issued a "recommendation to evacuate". Lessons from these have been used to make further improvements to the evacuation process through a range of activities, including:

− Multi-agency evaluation of two evacuations during the 2013-14 fire season (fires in Grampians and Loddon-Mallee regions).
− Multi-agency review of documentation regarding evacuation planning and procedures, including the JSOP03.12.
− Pilot of the Flood Evacuation Arrangements (FEA) to support evacuation planning for high flood risk communities in Charlton and Rochester.
− Communication of lessons relating to evacuation (e,g, 2014-15 regional preseason briefings) and dissemination of materials that reinforce the principles of evacuation (e.g. Bushfire Handbook).

2014-15 Insights

What went well?

1. Potential for evacuation was considered and planned for in the bushfire context, even though these plans were not always required to be implemented.
2. The Docklands Structure Fire multi-agency evacuation was conducted effectively with no deaths or major injuries.
3. Pre-season exercising and training has improved evacuation knowledge.
4. Improvements have been seen in development of relief plans to support evacuation.

Learning Opportunities

1. Operations and Planning units in incident management teams (IMTs) require expanded training on evacuation management.
2. The use of information sharing platforms (e.g. EMap, EM-COP) could be improved to better support evacuation planning.
3. A community misunderstanding still exists on what Neighbourhood Safer Places – Place of Last Resort (NSP-PLR) are and what to expect.
4. Increased knowledge of the behaviour of hazards is required across all agencies to assist in planning for evacuations.
5. Generic templates should be adapted so they are scalable to support evacuations of different sizes and complexities.
6. Emergency Management Teams (EMTs) and evacuation planning teams need to work collaboratively to achieve the best results.
7. Further work surrounding appropriate messaging to community regarding evacuations to ensure timely and relevant information is provided.
8. Evacuation plans for mass evacuations need to identify amenities appropriate for the scale of evacuation.

Suggested Treatments

• Develop training regarding evacuation planning for IMT and EMT personnel.
• Develop exercises with a focus on evacuation processes, inclusion of EMTs and community messaging.
• Review the relevant templates to ensure they are appropriate and scalable to better support evacuation planning processes.

Further Information

EM Knowledge > Doctrine > JSOPs
Joint Standard operating Procedure J03.12 – Evacuation

EM Knowledge > Reviews-Lessons > Learning Products > Case Studies
Docklands Structure Fire Case Study

Managing Multiple Emergencies

Introduction

Changes in legislation and state arrangements have highlighted a broad focus on emergencies beyond fire. The *Emergency Management Act 2013* outlines arrangements for major emergencies including the differentiation between class 1 and 2 emergencies.

Background

The management of multiple emergencies challenges the response capacity and capability of the state. Managing both fire and non-fire emergencies in the same geographic location or timeframe adds a layer of complexity for incident management, particularly in relation to transition between control agencies, understanding new state arrangements, and managing fatigue levels of personnel.

2014-15 Insights

What went well?

1. Readiness and response planning was effective and coordinated, particularly when planning for multiple hazard types (e.g. fire, flood, health). Planning emphasised the importance of strategic risks and consequence management.
2. There was efficient and effective rostering for Regional Controllers considerate of agency requirements.
3. There is a greater confidence in incident management teams (IMTs) to manage multi-hazard events.
4. Agency involvement in assisting recovery has increased.
5. Technology is assisting data and information sharing between Region and State.
6. Agencies are well practised in managing fire events.
7. There are strong agency relationships in place at the incident, region and state levels.

Learning Opportunities

1. Further work is required by Regional Emergency Management Teams (REMTs) to continue refining the all agency all hazards approach in real time, including adequate rostering for all REMT positions.
2. Greater engagement of Emergency Management Teams (EMTs) has led to increased requirements for space and functionality in Incident Control Centres (ICCs) and Regional Control Centres (RCCs).
3. Relief and recovery activities (e.g. impact assessment) can sometimes be delayed by the response to subsequent emergencies in same footprint.
4. There is some confusion relating to command structures and responsibilities at each level when managing multiple emergencies.
5. Triaging of events based on risk and consequence needs to be applied consistently by agencies and IMTs.
6. Managing multiple emergencies across ICC footprints requires improved communications planning.
7. There is confusion around the role and readiness requirements for Local Command Facilities (LCFs).

Suggested Treatments

- Develop a clearer definition and understanding of command and control arrangements in managing multiple emergencies and multiple hazards.
- Use exercises to practice the management of multiple emergencies, improve planning, and refine and test arrangements with all agencies.
- Review the role and readiness levels of LCFs.
- Consider greater engagement of EMTs in reviews of ICC and RCC design standards and functionality.
- Broaden communications planning to include neighbouring ICC footprints.

Further Information

EM Knowledge > Reviews-Lessons > Learning Products > Case Studies
Regional Readiness and Response Case Study

Additional Themes

Safety and Fatigue Management

Introduction

The number one priority under the state's strategic control priorities is the protection and preservation of life. This includes the safety of emergency services personnel. Emergency management activities are inherently dangerous. In order to maintain safety, hazards need to be identified, risks need to be assessed and decisions made to manage those risks. Everyone has a responsibility for safety.

Background

Key issues outlined in the *Post Season Operations Review Fire Danger Period 2013-14* included:
- Limited collaborative interagency reviews into serious injuries and near misses;
- Fatigue management; and,
- Better recording of personnel shift information.

These issues have been addressed through a range of activities that reinforced the requirement to report near misses, accidents and incidents with all personnel. Safety information was disseminated through a range of mediums, including:
- Documentation (e.g. Victorian Bushfire Handbook, CFA and DELWP Chief Officers Intent Documents).
- Pre-Season Information (e.g. regional briefings).
- Videos (e.g. dangerous trees).
- Standing agenda item on meeting and teleconference agendas (e.g. State Control Team).
- Safety Bulletins (released throughout the season).

2014-15 Insights

What went well?
1. There was a constant focus on safety this year through messaging and briefings.
2. Safety and fatigue management occurred well when engagement was strong between all levels and further supported when a State Occupational Health and Safety Executive Advisor was in place.
3. There appears to be a shift towards a stronger safety culture.
4. A range of materials highlighting the risk of hazardous trees were developed and disseminated throughout agencies.
5. Reduced occurrences of shifts in excess of 16 hours compared with previous season.

Learning Opportunities
1. There are safety concerns associated with private appliances on the fireground where they are not effectively integrated into the management structure.
2. Personnel being deployed on multiple occasions, involved in planned burning and business as usual work requirements is resulting in cumulative seasonal fatigue.
3. There is still work to do on ensuring key safety messages are shared between State/Region/Incident.
4. The role of Safety Officers in an all hazard environment requires clarification including relationships with Incident and Regional Controllers.
5. There is minimal capacity of Safety Officers.

Suggested Treatments

- Broaden the scope of potential capability across government agencies to fill the role of Safety Officer.
- Review the role, accountability and responsibilities for Safety Officer to ensure they reflect the all hazards environment.
- Review communication methods for key safety messages to ensure they are being shared consistently between State/Region/Incident.
- Review approaches to overcome cumulative seasonal fatigue mitigation due to personnel being deployed on multiple occasions and planned burning activities.

Further Information

EM Knowledge > Reviews-Lessons > Learning Products > Case Studies
Silo Engulfment Case Study

Christmas Hills Fire-Scape - April 2015

"Community members emphasised that the protection of assets that support their individual livelihoods (such as machinery, equipment, fencing, livestock, grain and seed and/or stock feed) are more valuable and important for some people than their residential property."

Community Engagement

Introduction

Involving communities in fire preparedness, response and recovery can contribute to mitigating the impacts of emergencies. This is because:

- Communities in affected areas bear the consequences of and are often the first responders to emergencies.
- Communities in high-risk areas have often developed their own coping mechanisms and strategies to reduce the impact of emergencies and it is important to appreciate this local knowledge and resources, and to build on them in order to improve to the capacity of people to withstand the impact of emergencies.
- Ownership of prevention and mitigation activities should not be stripped from local people who would be left even more vulnerable in the event that external intervention does not occur.
- Prevention and mitigation activities should be based on a participatory approach involving local communities as much as possible, considering them as proactive stakeholders and not passive targets for intervention.
- Involvement and participation of communities will ensure collative and coordinated action during emergencies.
- Building community leadership and a chain of trained community leaders through a participatory approach can help harness the resilience and resourcefulness of the community to cope with emergencies.

- Solutions are more sustainable if it comes from the community themselves rather than having solutions imposed upon them.

Background

The community reports from 2013-14 reflected a range of issues identified by East Gippsland communities in relation to community engagement prior to and during the 2013-14 fire season. In particular, community members emphasised that the protection of assets that support their individual livelihoods (such as machinery, equipment, fencing, livestock, grain and seed and/ or stock feed) are more valuable and important for some people than their residential property. Involvement of the community in emergency preparedness and response will better ensure that these needs are considered and prioritised in emergency response depending on their level of importance for specific communities.

Since the 2013-14 financial year, the following work has been completed:

- Development of a Community Resilience Framework that all agencies are committed to.
- Development of the Community Based Emergency Management Framework to improving community connectedness with the emergency management sector.
- Implementation of Community Emergency Risk Assessment (CERA) in collaboration with Municipal Emergency Management Planning Committees to improve the consistency and rigour of community emergency risk assessments, and to allow meaningful

comparisons between agencies on different hazards and/or hazard footprints.
- The continued rollout of the Culturally and Linguistically Diverse (CALD) strategy into business as usual.

2014-15 Insights

What went well?

1. Early community engagement provided a greater level of community readiness.
2. Community readiness was linked with the Victorian Fire Risk Register.
3. Attendance at community meetings as a single multi-agency group of emergency management representatives was received well.
4. A Community Resilience Framework was agreed and committed to by all agencies.
5. The provision of warnings and information to the community was generally timely, relevant and tailored.
6. Working as one to assist with public messaging was consistent regardless of agency.

Learning Opportunities

1. Community awareness during response and recovery activities needs improvement.
2. Community engagement during response and recovery is inconsistent.
3. In some areas, connections between Incident Controllers (ICs) and local councils could be improved through proactive and timely engagement.
4. Public information and warnings need to be updated in a timely way and old messages should be unpublished quickly to reduce any community confusion.

Suggested Treatments

- Opportunity exists to engage more with community to increase their awareness of the shared responsibility of emergency management in response and recovery.

- Continue to improve processes of community engagement during response and recovery activities, including an exploration of different approaches and mediums for communicating information and capturing feedback.
- Continue to educate emergency management personnel at incident and region tiers about the role of local councils and other support agencies (e.g. Ambulance Victoria) to ensure they are connected, engaged and acknowledged as key stakeholders.
- Continue to develop the system of public information, training of incident management personnel and educate the community to ensure community confusion is minimised.

Further Information

EM Knowledge > Reviews-Lessons > Learning Products > Case Studies
Fires in Hume Region Case Study

Fires in Loddon Mallee Region Case Study

Farm Fire Safety Case Study

February Thunderstorm Case Study

Christmas Hills Fire-Scape

> "Combined with the aircraft from the "call when needed register", these aircraft flew in excess of 6,700hrs on a variety of fire, emergency and land management operations."

Wodonga West Fire Response - December 2014

Aviation

Introduction

During 2014-15, the Victorian State Fleet of 46 aircraft consisted of the following aircraft types:

- Type 3 (light helicopters)   16
  (4 of these were firebombing helicopters)
- Type 2 (Medium helicopters)   6
- Type 1 (Heavy volume helicopters)   4
- Single Engine Air Tankers (SEATs)   12
- Large Air Tankers (LATs)   2
- Infra-red linescanners   2
- Light Fixed Wing aircraft   4

Combined with the aircraft from the "call when needed register", these aircraft flew in excess of 6,700hrs on a variety of fire, emergency and land management operations.

Following a statewide review of the *Aviation Capability Management Framework* in 2014, it was identified that Victoria was unable to meet dangerous or catastrophic conditions due to a lack of large volume firebombing aircraft. As

a result, Victoria engaged and used two LATs during the 2014-15 summer emergency season, a first for Australia. These aircraft were also able to provide support on fire incidents in three other states. In addition, an additional Type 2 helicopter was located at Latrobe Valley airport through the capability review process.

Background

Information collected following the 2013-14 season suggested that a number of areas in aviation management needed to be improved. Significant work was undertaken to review the potential for expanding the Pre-determined Dispatch (PDD) arrangements to include more locations and types of aircraft, increase the level of awareness of ground crews working with aircraft, and identify and provide greater visibility of aviation personnel and readiness.

2014-15 Insights

What went well?

1. Feedback regarding the State Air Desk (SAD) indicated that personnel were capable, well

> "Significant work was undertaken to review the potential for expanding the PDD arrangements to include more locations and types of aircraft, increase the level of awareness of ground crews working with aircraft, and identify and provide greater visibility of aviation personnel and readiness."

Wodonga West Fire Response - December 2014

trained, clear, calm, helpful and generally provide a good service.

2. The expanded PDD arrangements (i.e. more locations and aircraft) helped reduce fire size and personnel time on the fireground.
3. There was increased sharing of aviation resources across multiple incidents.
4. Better understanding at all levels of the most appropriate aviation resources for incident type and improved specifications when requesting aircraft.
5. Regional aviation rosters assisted in planning and readiness.

Learning Opportunities

1. There is currently no process to measure effectiveness of aircraft (in particular, those activated by PDD).
2. Information is often not provided to passengers when travel arrangements are delayed.
3. PDD, Fire Danger Index triggers, locations of Air Attack Supervisors (AASs) and AAS aircraft have led to an increase in readiness requirements reflected in JSOP02.06.
4. Statewide aviation rostering does not currently reflect personnel from all Regions and required aviation roles (e.g. airbase management roles).
5. Safety and effective communications between aircraft and ground crews needs to be improved.
6. Inconsistent understanding and application of arrangements regarding deactivation/ reactivation of PDD.

Suggested Treatments

- Explore the requirements for an Aviation Resource Coordinator at Region level.
- Minor continuous improvement review of *Joint Standard Operating Procedure J02.06 – Readiness Arrangements – Aviation Resources (Bushfire)*
- Refine arrangements and communications regarding deactivation/reactivation of PDD.
- Review statewide aviation rostering to ensure personnel from all Regions are included and it is expanded to cover required aviation roles (e.g. airbase management roles).
- Further awareness and education across all agencies about working with aircraft to ensure safety and effective communications between aircraft and ground crews.

Further Information

EM Knowledge > Doctrine > JSOPs
Joint Standard Operating Procedure J02.06 – Readiness Arrangements – Aviation Resources (Bushfire)

EM Knowledge > Reviews-Lessons > Learning Products > Case Studies
Moyston Bushfire Case Study

Victoria's Deployment to Western Australia Fires - February 2015

"The revised State Emergency Response Plan (2014) outlines the responsibility of the EMC to coordinate the supply or receipt of all interstate and international resources for class 1 and class 2 emergencies in Victoria."

Interstate/International Deployment

Introduction

The revised *State Emergency Response Plan (2014)* outlines the responsibility of the Emergency Management Commissioner (EMC) to coordinate the supply or receipt of all interstate and international resources for class 1 and class 2 emergencies in Victoria. In some cases, the EMC will coordinate a national multi-jurisdiction deployment to an international request for personnel.

Background

The *Post Season Operations Review Fire Danger Period 2013-14* focussed primarily on the functioning of the Interstate International Liaison Unit (IILU) in the State Control Centre (SCC). The IILU supports both outgoing and incoming deployments of resources. Several improvements were completed during the season including a new IILU area within the SCC being built to improve communications between the Resources, Logistics and IILU functions.

During 2014-15, Victorian multi-agency personnel were deployed to assist and support fire and storm incidents in the following jurisdictions:
- British Columbia, Canada Fire Response – August and September 2014
- South Australia Fire Response – January 2015
- Western Australia Fire Response – February 2015
- New South Wales Storm Response – April 2015.

2014-15 Insights

What went well?
1. Integration and interaction with host service and local crews.
2. Travelling as a multi-agency group.
3. Coordinated pre-planning and deployment.
4. Liaison team role was important in supporting the deployed personnel including the use of field based liaisons.
5. Provided prompt and valuable assistance to the host service.
6. Provided a learning experience for deployed personnel.

Learning Opportunities
1. There were often communication issues and inefficiencies when the liaison team did not match the size and spread of deployment.
2. There was no consistency in processes, documentation and briefing materials in preparedness and response to interstate and international requests for assistance.
3. The IILU function in the SCC needs further enhancement to improve deployment processes, including clarity of leadership, decision making, communications and information flow to other units.
4. Improvement is required in communicating available resources for interstate and international deployments.
5. Automatic deployment of support services is required e.g. peer support, District Mechanical Officers.
6. There needs to be improved connections

"Several improvements were completed during the season including a new IILU area within the SCC being built to improve communications between the Resources, Logistics and IILU functions."

Victoria's Deployment to New South Wales Storms - April 2015

between the host agency and deployed resources.

Suggested Treatments

- Develop and refine the processes, documentation and briefing materials required for preparedness and response to international and interstate requests for assistance.
- Develop a consistent process for identifying appropriate and qualified personnel across all agencies prior to deployment requests.
- Develop a 'catalogue' detailing the Victorian resources and capability to support the ability of other jurisdictions to request resources, including role equivalencies.
- Progress the training and development of personnel who are utilised in the SCC IILU.
- Consider developing a consistent approach to deployment liaison teams to ensure they match the size and spread of deployment, including field based liaisons.

Further Information

Review of the Victorian Deployment to New South Wales Storms – April 2015 (unpublished)

Australian support to British Colombia, Canada August – September 2014 Deployment Review (unpublished)

EM Knowledge > Reviews-Lessons > Learning Products > Case Studies
NSW Deployment: Social Media at an Incident Control Centre Clarence Nambucca Region Case Study

> "The EMT is a whole-of-government forum that coordinates the activities of agencies with roles and responsibilities in emergency management in order to present the community with a unified approach from government during the readiness for, response to and recovery from an emergency."

Mystic Park Fire Response - December 2014

Emergency Management Teams

Introduction

An Emergency Management Team (EMT) provides support to the EMT Chair (the controllers/coordinators for the respective phase of emergency management at the particular tier, who are responsible for directing the actions of agencies) with a wide information base.

The EMT is a whole-of-government forum that coordinates the activities of agencies with roles and responsibilities in emergency management in order to present the community with a unified approach from government during the readiness for, response to and recovery from an emergency. An EMT can be established at State, Region and Incident tier.

The forum assists the EMT Chair to more easily identify risks, establish priorities, and identify actions to mitigate the priority risks and the agencies responsible for action. This information forms the basis of a whole-of-government plan for managing the particular phase of the emergency.

The EMT Chair will task support agency or functional commanders to implement a strategy or to provide resources in support of these strategies. Support agency commanders then implement the allocated strategy through their respective command structures, and report back to the EMT Chair as to the success or otherwise of the strategy.

Background

In December 2014, the Emergency Management Commissioner (EMC) released *Emergency Management Team Arrangements - for all emergencies (December 2014)* which provided clearer alignment to the *Emergency Management Act 2013* in respect to the role of EMTs across the phases of readiness, response and recovery. The arrangements provided expectations of the role, membership, inclusion of local government, key business and critical infrastructure operators as well as community representation.

The arrangements also provided standard EMT agenda templates for State, Region and Incident EMTs providing greater consistency within the emergency management framework.
2014-15 Insights

What went well?

1. EMTs demonstrated maturity around engagement and participation consistent with the arrangements.
2. Where Municipal Emergency Response Coordinators (MERCs) and Municipal Emergency Response Officers (MEROs) were located at Incident Control Centres (ICCs), this assisted in the rapid formation of the Incident EMT.
3. Emergency Management Liaison Officers (EMLOs) in place at ICCs ensured common understanding.
4. Relationships that had previously been developed assisted in the effectiveness of EMTs.

5. Pre-planned contacts and accessibility of EMT members during the readiness phase assisted in the response and recovery process.

Learning Opportunities
1. EMT governance arrangements are not clearly understood in all locations.
2. The role of the Municipal Emergency Coordination Centres (MECCs) at the incident level is unclear.
3. Expectations and requirements of support agency involvement in EMTs are unclear in some locations.
4. De-escalation of EMTs needs to be better understood and exercised.

Suggested Treatments

- Continue to develop EMT scenario exercises, including those with a focus on de-escalation.
- Ensure ongoing engagement occurs with EMTs, particularly using readiness days to test arrangements and communications.
- Continue to train and educate emergency management personnel regarding the EMT governance arrangements.
- Develop a clearer definition regarding the role of MECCs.
- Clarify and communicate the expectations and requirements of support agency involvement in EMTs at all levels.

Further Information

EM Knowledge > Reviews-Lessons > Learning Products > Case Studies
Docklands Structure Fire Case Study

Emergency Management Team Arrangements - for all emergencies, December 2014.
https://www.emv.vic.gov.au/procedures/incident-management/

Wodonga West Fire Response - December 2014

Regional Control

Introduction

Regional control leads and manages the response to a series of emergencies within a Victorian government Region on behalf of the State Response Controller. The regional tier provides the link between emergency management at the incident and state, as defined in the *Emergency Management Manual Victoria - Part 3: State Emergency Response Plan*. It is an integral role in the emergency management system.

In this instance, regional control refers to integrated emergency readiness and response delivered through the Regional Controller (RC), Regional Control Team (RCT) and Regional EMT (REMT).

Background

Regional control has evolved over previous years and has matured in line with the Emergency Management Commissioner's (EMCs) expectations and legislation through the development of class 1 and class 2 emergencies as defined in the *Emergency Management Act 2013*.

The move towards an all hazards approach has required regional control to consider broader impacts than just bushfire and has seen the readiness and response activations expand to meet the needs and expectations of the community.

In May 2014, a review of regional control arrangements in Victoria identified a range of areas for improvement. These have subsequently been the focus of significant work, including the areas of multi-hazard arrangements, resourcing, doctrine, facilities, accreditation, and professional development. A series of workshops and briefings with regional control personnel were carried during the 2014-15 period to engage, develop and work with regional control personnel.

2014-15 Insights

What went well?

1. The roles of RCs, Regional Emergency Response Coordinators (RERCs) and the RCT are stronger and clearer than in previous years.
2. The ability of RCs and Incident Controllers (ICs) to provide situational awareness and fact check has improved.
3. Regional relationships have strengthened and teams are more closely working as one.
4. There is greater consistency of RCT membership across regions.
5. There are clear policies and practices for regional control, particularly during the fire danger period (FDP) (e.g. rosters and meetings).
6. The Intelligence Officer trial was useful for tracking and validating warnings.

Learning Opportunities

1. Regional control arrangements and expectations across multiple hazards and outside the FDP are unclear.
2. The ability to maintain the current regional

resourcing level is being challenged by the expectations of providing a 24 hour/365 day capacity, particularly during prolonged response periods.

3. Communication is irregular and inconsistent between RCs and Regional Agency Commanders (RACs), particularly during non-operational periods.

4. Challenges exist in engaging with multiple municipalities with differing needs and levels of engagement.

Suggested Treatments

- Consider ways of clarifying regional control arrangements across multiple hazards and year round.
- Support greater engagement with local government (e.g. key contacts/forums).
- Broaden the scope of potential capability across government agencies to identify personnel to fill roles in RCT.
- Provide more professional development opportunities to develop capabilities across all hazards, or give RCs the option of which hazard(s) they manage.
- Reinforce further improved and regular communication between RCs and RACs, particularly during non-operational periods, through weekly RCT teleconferences and active monitoring of emergency management webmail when on roster.

Further Information

Emergency Management Manual Victoria
https://www.emv.vic.gov.au/policies/emmv/

EM Knowledge > Reviews-Lessons > Learning Products > Case Studies
Regional Readiness and Response Case Study

Conclusion

Wodonga West Fire Response - December 2014

Overall, Victoria's emergency management sector effectively and efficiently managed the response and recovery of a large number of incidents, including storms, bushfires, flash flooding and extreme heat.

During these operations, a range of issues were identified by those involved that could be categorised into 11 themes. In each theme, aspects that went well and areas for improvement have been identified.

Suggested treatments have been identified for each theme, which will be used to develop an action plan. The insights identified in this report, and any related actions, will become part of a two-year rolling cycle of learning and improvement processes.

This will support continuous evaluation activities and improvement processes to occur throughout the year, with insights incorporated into emergency management planning across the sector.

"Overall, Victoria's emergency management sector effectively and efficiently managed the response and recovery of a large number of incidents, including storms, bushfires, flash flooding and extreme heat."