

**2009 VICTORIAN BUSHFIRES ROYAL COMMISSION****Letters Patent issued 16 February 2009****SUBMISSIONS OF THE STATE OF VICTORIA FOR THE INTERIM REPORT**

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**A. INTRODUCTION****Background**

1. On 7 February 2009, Victoria was devastated by the worst bushfires in Australia's history.
2. 173 people lost their lives and many others were seriously injured, despite extensive community preparations, the extraordinary dedication and efforts of emergency service personnel and a massive deployment of resources. Around 78 communities were directly impacted and entire towns were left unrecognisable. The fires destroyed more than 2,000 properties, 61 businesses, almost 430,000 hectares of land, 70 national parks and reserves and over 3,550 agricultural facilities.<sup>1</sup> Police stations, schools and kindergartens, fire and emergency services facilities, churches, community halls and sporting clubs were also destroyed or badly damaged.
3. The overwhelming trauma and loss from this catastrophic natural disaster was profound, and extended well beyond the destructive path of the fires. The rebuilding process has begun, but it will take time as communities heal, make decisions about their future and recover their sense of place and belonging.
4. Thousands of volunteer and career firefighters immediately responded and over 10,000 personnel were subsequently involved in Victoria's largest ever coordinated emergency response and community recovery operation.

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<sup>1</sup> *Victorian Bushfire Reconstruction and Recovery Authority 100-Day Report*, TEN.046.001.0001.

5. The State acknowledges and commends the courage and dedication of the volunteer and career firefighters, support staff and emergency services personnel who responded to these unprecedented fires in extremely difficult and dangerous conditions. The State also extends its deepest respect and sympathy to the families, friends and colleagues of the 173 people who lost their lives including, Arthurs Creek Country Fire Authority (CFA) volunteer firefighter Joseph Shepherd, who died of injuries sustained on 7 February, and Canberra firefighter David Balfour, who died after being struck by a falling tree near Marysville in the days after the fires. The State also acknowledges that many of the State's fire and emergency service workers who were called into service on 7 February suffered losses of their own. Some lost homes and property, others lost family, friends and colleagues. Despite this, individual volunteer and career firefighters continued to work to protect communities under bushfire threat. The scale and complexity of the response, relief and recovery effort was unprecedented. A large number of organisations and agencies were called into service. The State places on record its deep gratitude for the courage and commitment of the men and women involved, many of whom are still coming to terms with the enormity of what they faced and the devastation that followed.
6. Fire is a natural part of Victoria's environment and has shaped the landscape for thousands of years. The earliest recorded catastrophic bushfire in Victoria occurred in February 1851, when five million hectares – roughly one quarter of the State – were burnt. The State has continued to experience significant fire years, including the Black Friday bushfires in 1939 and the Ash Wednesday bushfires in 1983. The past decade, however, has seen an increase in the number, size and severity of bushfires in Victoria. The 2002/03 Alpine fires and the 2006/07 Great Divide fire are evidence of a heightened risk caused by a combination of drought, changing climatic conditions and unusually high fuel loads.<sup>2</sup> Despite improvements in working with communities, the threat of losing life and property through bushfire remains very real. In recent years, Victoria has experienced an expansion of its urban-rural fringe communities, with many people moving from metropolitan areas into bushfire prone areas without fully understanding the history and risks involved. In addition, millions of holidaymakers visit high fire risk areas each year, often with little knowledge or experience of fire.
7. The fires of 7 February 2009 occurred after more than a decade of drought and significantly below average rainfall. In 2008, a wet November and December

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<sup>2</sup> *Living with Fire: Victoria's Bushfire Strategy 2008*, Esplin (Attachment 21) Ex 11, WIT.005.001.1776 at 1779.

allowed the growth of more fine fuels.<sup>3</sup> By late January, this new growth dried out as Victoria experienced some of the hottest conditions on record. Eight Total Fire Ban Days were declared, Melbourne experienced temperatures above 43 degrees on three consecutive days, vegetation was tinder dry and fuel loads were at very high levels.<sup>4</sup>

8. Preparations for days of extreme fire danger start well in advance of the predicted event. In addition to their usual preparations for the 2008/09 fire season, the CFA and the Department of Sustainability and Environment (**DSE**) undertook additional coordinated planning in response to the drier weather conditions and public warnings commenced in October at the start of the 2008/09 Fire season, with predictions of a 'high-risk' outlook.<sup>5</sup> By 3 February, extreme fire danger conditions were predicted and 7 February was identified as a day of particular concern. The extreme conditions were expected to peak, with temperatures in the mid 40s, low relative humidity, strong winds of 50-100kph and a predicted Grass Fire Danger Index (**GFDI**) of 328 – which is effectively 'off the scale'.<sup>6</sup> The temperatures and humidity in the weather forecast for 7 February were such that comparisons were made between the forecasted weather and that experienced ahead of Black Friday and Ash Wednesday were made.<sup>7</sup>
9. Unlike other severe fire days in Victoria, this weather forecast was for the whole of the State, not just a district. Between 4 and 7 February 2009, there was a significant escalation in planning activities. The strategic planning undertaken by CFA and DSE before and on 7 February was predicated on having the capacity to respond not only to any new fires across the State, but also to any other incident for which they would be responsible. The strategy was built around a recognition that the whole of Victoria was at extreme risk of fire, including Melbourne, regional cities, urban-rural interface areas and rural areas. Victoria's fire services also recognised that it was important to be able to maintain the capacity to respond over a long period, particularly following the experience of 2003 and 2006, when bushfires burnt continuously for more than two months. The strategy involved utilising all the resources of the State and being able to access interstate and international resources through mutual aid provisions.<sup>8</sup>

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<sup>3</sup> Esplin Ex 11, WIT.005.001.0001 at 0012, [67]

<sup>4</sup> Rees Ex 3, WIT.004.001.0001 at 0061, [269], [272].

<sup>5</sup> Esplin Ex 11, WIT.005.001.0001 at 0025, [138].

<sup>6</sup> Rees Ex 3, WIT.004.001.0001 at 0065, [283]-[284] See also Rees (Annexure 23) Ex 3, WIT.004.001.0486 at 0489.

<sup>7</sup> Rees Ex 3, WIT.004.001.0001 at 0064 and 0066, [280], [287]; Esplin Ex 11, WIT.005.001.0001 at 0033 and 0034, [176], [182].

<sup>8</sup> Esplin Ex 11, WIT.005.001.0001 at 0013, [71].

10. The weather on 7 February 2009 was worse than forecast.<sup>9</sup> Melbourne experienced its hottest day in 154 years of record-keeping at 46.4 degrees. Winds gusted to 90kph at a number of elevated weather stations and gusts of 115kph were recorded at Mt William and Mt Gellibrand. Relative humidity dropped to 6% at 3pm.
11. In conjunction with the operational preparations for 7 February, there was also a heightened and concerted effort to inform and warn the community of the unprecedented and dangerous conditions. These warnings were communicated by various means including joint print media releases, press conferences with fire chiefs, interviews with media organisations, community meetings, website alerts, and public messages communicated by, among others, the Premier of Victoria. The key messages were focussed on informing the community that extreme fire weather was predicted for 7 February and that people living in bushfire prone areas should remain vigilant and take the appropriate steps to prepare and protect themselves.<sup>10</sup> In a press conference on 30 January, the Premier reinforced this message and stated 'we are right on the edge today'.<sup>11</sup> On 4 February, the Premier said in the media that the State was ready to burn, with or without extreme heat. On 5 February, he said 'everything is just tinder dry and we don't even need the high temperatures now for high fire alerts'. On 6 February, the Premier said the forecast conditions would make it 'the worst day ever in the history of our State'. The Premier and Victoria's chief fire officers also warned residents to activate their bushfire plans and urged Victorians not to undertake unnecessary travel.<sup>12</sup> CFA Chief Officer Russell Rees said Victoria was 'in uncharted territory in terms of fire danger' and said leaving an unsafe house was a 'perfectly appropriate strategy' and 'we would rather be talking about lost houses than lost lives'.<sup>13</sup>
12. On 7 February, 12 major fires and 1,386 other incidents – including 624 grass or wildfires – occurred across the State.<sup>14</sup> DSE chief fire officer Ewan Waller gave evidence that there was 'some extraordinary fire behaviour',<sup>15</sup> with fires reaching a maximum fire intensity of 80,000 kilowatts per metre, making them 'very, very

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<sup>9</sup> Esplin Ex 11, WIT.005.001.0001 at 0025, [135].

<sup>10</sup> Rees Ex 3, WIT.004.001.0001 at 0078 to 00079, [313]-[314]; Esplin Ex 11, WIT.005.001.0001 at 0035 to 0039, [183]-[199].

<sup>11</sup> Esplin Ex 11, WIT.005.001.0001 at 0029, [154].

<sup>12</sup> *Transcript of Press Conference, Ballarat*, Esplin (Attachment 76) Ex 11, WIT.005.001.2383; *CFA/DSE Joint Media Release*, Esplin (Attachment 71) Ex 11, WIT.005.001.2376.

<sup>13</sup> *Chief Fire Officer podcast*, Esplin (Attachment 78) Ex 11, WIT.005.001.2400.

<sup>14</sup> Rees T2626

<sup>15</sup> Waller T115:5.

difficult to control'.<sup>16</sup> Despite the events that unfolded, a number of fires which had enormous potential for significant loss of life and property including a fire in Ferntree Gully were successfully brought under control.<sup>17</sup>

13. With a measurable increase in the number and severity of bushfires over the last decade, it is vital that the State's fire services continue to build their response capabilities. Bruce Esplin, the Emergency Services Commissioner for the State of Victoria, gave evidence to Royal Commission that he believed up until lunchtime on 7 February that Victoria's bushfire policies were some of the best in the world. Mr Esplin stated in evidence to the Commission that 'it is no accident that people from various other fire-prone parts of the world were coming to Victoria to look at those policies. The events of the 7<sup>th</sup> – the weather, the fuel load, the experience that that has provided – means we need to reopen and review most of those policies and see how they can be strengthened to ensure that we reduce the risk of it happening again, as much as that is possible.'<sup>18</sup>
14. Bushfires can devastate communities and the surrounding landscape, and the destruction left behind can take years to mend. Bushfires can never be completely avoided. However, the State is committed to limiting the number and impact of bushfires, and assisting affected communities to prepare, respond and recover.
15. The characteristics of bushfires and the State's organisational capacity to manage and respond has changed significantly over time, with Victoria's bushfire agencies benefitting from regular independent reviews, internal assessments and international benchmarking.<sup>19</sup> Victoria's original emergency management plan, known then as the State Disaster Plan (**DISPLAN**), was prepared in the 1960s and revised in 1982. Following the Ash Wednesday bushfires, a number of reviews of Victoria's emergency management arrangements were conducted. The findings of these reviews were incorporated into the development of Victoria's current emergency management arrangements.
16. The *Emergency Management Act 1986* is designed to ensure that Victoria's emergency management is structured to facilitate planning, preparedness, operational coordination and community participation in the prevention of, response to and recovery from emergency events. The arrangements reflect the 'all hazards, all agencies' principle in that they are designed to deal with the more

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<sup>16</sup> Waller T107:17-T107:18.

<sup>17</sup> Rees Ex 3, WIT.004.001.0001 at 0084 to 0092, [341]-[375].

<sup>18</sup> Esplin T375:27-T375:31.

<sup>19</sup> *Living with Fire: Victoria's Bushfire Strategy*, Esplin (Attachment 21) Ex 11, WIT.005.001.1776 at 1787.

'common' emergencies such as fire or flood as well as a wide range of other emergencies. They also recognise that the management of emergencies is a shared responsibility involving many agencies and organisations.

17. Since 1999, the State has more than tripled the annual base funding for fighting fires from \$30 million annually to more than \$100 million. The cumulative effect of this funding increase has resulted in more than \$1 billion being provided towards bushfire prevention, suppression and recovery between 2003/04 and 2008/09.
18. In 2008, the Victorian Government released *Living with Fire – Victoria's Bushfire Strategy*. This strategy emphasises the importance of preventative actions to meet future bushfire challenges. The increased use of fire as a management tool, in particular planned burning, together with the engagement of communities in decision-making, aimed to reduce the frequency and impact of the large, landscape-scale fires experienced in Victoria over the last decade. The 2009/10 State Budget provided \$986 million towards firefighting services and infrastructure, and targeted recovery and support packages following the fires of 7 February 2009. This included:
  - (a) \$344 million for fire suppression activities undertaken by DSE, CFA, the Metropolitan Fire and Emergency Services Board (**MFB**), Victorian State Emergency Service (**VicSES**) and interstate and overseas fire fighters;
  - (b) \$167 million to maintain and improve emergency services communications for the public and between emergency services organisations;
  - (c) \$70 million over two years for individual case managers to help Victorians affected by the bushfires;
  - (d) \$40 million over two years to establish the Commission; and
  - (e) \$365 million for other bushfire-related initiatives, which included.
    - (i) \$36 million for compassionate assistance, such as temporary housing, funeral expenses, emergency medical services, counselling services, and emergency hardship grants;
    - (ii) \$51 million for a business assistance package to help small businesses and primary producers, including business assistance grants, low-interest loans and business restart mentors;
    - (iii) \$46 million to help clean up bushfire affected areas to allow the rebuilding effort to start; and

- (iv) \$21 million to establish the Victorian Bushfire Reconstruction and Recovery Authority.
19. In the immediate aftermath of 7 February, the State worked with the Commonwealth to put in place immediate help and support for fire affected communities. A \$10 million Community Recovery Fund was established and the Victorian Bushfire Appeal Fund 2009 was launched in partnership with the Australian Red Cross. The response and generosity of people from around Australia and overseas was also overwhelming. In the aftermath of the fires, more than 500,000 kilograms of food and 10,000 offers of accommodation were provided.<sup>20</sup>
20. Countless volunteers, relief agencies, local business and organisations have also supported fire affected communities and more than \$351 million has been donated to the Victorian Bushfire Appeal Fund. More than \$240 million has so far been allocated to thousands of individuals to assist them rebuild their homes, lives and communities.<sup>21</sup>
21. On 10 February, the Victorian and Commonwealth Governments jointly announced that a case manager would be assigned to each Victorian family affected by the bushfires. A case management system and call centre were established three days later to ensure fire affected communities have coordinated access to support, information and advocacy services. The State also put in place initiatives including counselling support, land tax and stamp duty relief and a major package to support Victorian businesses that were damaged or destroyed by the bushfires. The State has also distributed compassionate and bereavement payments and funding to cover medical expenses and immediate essentials. Since 7 February, the State has put in place a diverse range of ongoing short, medium and long-term initiatives to help fire affected communities rebuild, including community building initiative programs, community infrastructure programs, tourism recovery initiatives and new planning amendments to fast-track rebuilding efforts. A National Day of Mourning – Together for Victoria – was also held at Rod Laver Arena to honour the victims of Victoria's bushfires and to recognise the courage and tireless efforts of emergency service workers. The Premier of Victoria also stated in Parliament 'we will continue to do everything in

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<sup>20</sup> *Victorian Bushfire Reconstruction and Recovery Authority 100-Day Report*, TEN.046.001.0001.

<sup>21</sup> *Victorian Bushfire Appeal Fund 100-Day Report*.

our power to help Victoria to rebuild after these fires. We will do everything in our power to prevent a disaster like this from ever happening again.<sup>22</sup>

22. On 10 February 2009, the State and Commonwealth established the Victorian Bushfire Reconstruction and Recovery Authority, chaired by former Chief Commissioner of Police Christine Nixon. The Authority has since met with more than 4400 people to develop medium to long term rebuilding plans that reflect the wishes of individual communities. The Authority is also overseeing the clean-up of debris and hazardous material from thousands of fire affected properties and the establishment of temporary villages at Marysville, Flowerdale and Kinglake.
23. On 13 February 2009, the Premier announced a Royal Commission into the bushfires. The Premier said the Commission would have the 'broadest possible terms of reference and capacity to inquire into every aspect of these fires' because 'Victorians rightly want and deserve to know all the details about how the bushfires occurred'.<sup>23</sup> Bushfires will remain a part of Victoria's summers. Managing bushfire risk is a shared responsibility between government and the community. Highly skilled, well-equipped firefighting services – together with communities that are well informed and well prepared – are best able to manage the bushfire threat. The State is strongly committed to achieving this goal by improving Victoria's fire management capacity and community resilience, and ensuring that a bushfire tragedy like 7 February 2009 does not occur again.
24. On 16 February 2009, Letters Patent were issued formally establishing the 2009 Victorian Bushfires Royal Commission. The State believes a Royal Commission is the most appropriate means of investigating the causes of, preparations for, and responses to the bushfires that swept through Victoria in late January and early February, devastating the lives and livelihoods of so many.

## **B. GUIDING PRINCIPLES**

25. The State agrees with the proposition that the protection of human life is paramount and should be adopted as a guiding principle to inform the recommendations to be made in the Interim Report.

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<sup>22</sup> *Parliamentary Debates (Hansard)*, Legislative Assembly, 24 February 2009, 299 (John Brumby MP, Premier).

<sup>23</sup> Media Release issued from the Office of the Premier, 13 February 2009.

26. The purpose of the Commission providing an interim report is to provide recommendations for the 2009/10 fire season. That is, recommendations which can be implemented for a fire season that is around 16 weeks away.<sup>24</sup>
27. In making its recommendations, the Commission should not go beyond what can reasonably be achieved for the next fire season. To do so would result in the community having a false sense that certain protective measures were in place for the next fire season. This is particularly relevant to the issue of fire refuges.
28. There are also principles of law, most relevantly principles of natural justice, which should guide the Commission in its recommendations. In particular, the Commission will need give consideration to:
- (a) whether it has heard sufficient evidence in these hearings upon which to base findings; and
  - (b) whether parties, whether represented or not, have had sufficient opportunity to place all relevant evidence before the Commission in respect of findings.<sup>25</sup> Interim findings made public by the Commission may not be able to be subsequently rectified by allowing such evidence to be called at a later point in time.<sup>26</sup>
29. The State has assisted the Commission to date by identifying witnesses relevant to issues nominated by Counsel Assisting the Royal Commission, providing witness statements and ensuring that witnesses have been available to give evidence at short notice. The State has also provided significant documentary material to the Commission by responding to summonses, responding to calls for documents and by attaching documents to witness statements. The State looks forward to receiving the opportunity to consider what evidence it will call in response to the findings of fact that Counsel Assisting have submitted ought be drawn by the Commission.<sup>27</sup>
30. Based on the limitations identified above, it is submitted that:

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<sup>24</sup> The Letters Patent issued on 16 February 2009 direct the Commissioners to furnish 'an interim report focusing on immediate actions that can be taken prior to the 2009-1010 fire season'.

<sup>25</sup> It is submitted that, at law, reputation is a relevant interest.

<sup>26</sup> *Mahon v Air New Zealand Ltd* [1984] AC 808; *Annetts v McCann* (1990) 170 CLR 596 at 599-600, per Mason CJ, Deane & McHugh JJ, at 619 per Toohey J; *Ainsworth v Criminal Justice Commission* (1992) 175 CLR 564 at 591. Also note *NCSC v News Corporation Ltd* (1984) 156 CLR 296 which qualified this rule, but only in respect of Commissions which did not have the function of making findings or reporting publicly.

<sup>27</sup> The proposed findings by Counsel Assisting were not served on the State of Victoria until 24 June 2007 and the remaining time scheduled for witnesses in the initial hearing block had already been filled.

- (a) While any legislative change will be given priority, the Commission needs to be mindful that there may need to be sufficient time to educate the community about such changes.
- (b) The Commission should be cautious about recommending wholesale structural changes in its interim report because it may not be possible to implement such changes before the commencement of the fire season and there may be evidence that the State wishes to adduce on such matters.
- (c) Where there are gaps in the evidence the Commission should refrain from making recommendations and findings until those gaps in evidence can be filled by further evidence.
- (d) Any findings should incorporate a recognition by the Commission that the State relies heavily upon volunteer fire fighters. Everything possible should be done to ensure that the work of the Commission does not have a negative impact on the retention and recruitment of fire fighting personnel and the willingness of support personnel to staff Incident Control Centres (ICCs), and other centres including the Integrated Emergency Coordination Centre (iECC).<sup>28</sup>

### **C. WARNINGS**

- 31. The State supports initiatives to improve the quality and timeliness of warnings issued during fires and agrees that the content of bushfire warnings in Victoria must be designed to maximise the potential to save lives.<sup>29</sup>
- 32. Before 7 February 2009, CFA and DSE had been moving towards an improved system of warnings. Consistent community advice before 7 February had been that the community may not receive a warning before the fire front arrives because it may not be possible. In light of the situation that arose on 7 February, the State agrees that more must be done to improve community understandings of warnings and their limitations.
- 33. In this regard, it is the State's position that the effectiveness of warnings is inextricably linked with the community awareness of their meaning and delivery and each person's adherence to a well prepared and meaningful bushfire plan.

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<sup>28</sup> The Letters Patent issued on 16 February 2009 acknowledged and commended 'the significant dedication and efforts of staff and volunteers in responding to this emergency in extremely difficult conditions'. See also key findings in the submissions of Counsel Assisting at 1.3(a) and (b).

<sup>29</sup> Mr Rees himself stated that nothing was 'off the agenda' in relation to warnings: Rees T54:18-T54:20.

34. The State broadly agrees with the proposed recommendations of Counsel Assisting about warnings, which are consistent with the work already being undertaken by the State in this area.<sup>30</sup>

### **Content of Warnings**

35. Before and on 7 February 2009, the fire services issued warnings using the graduated templates for awareness, alert, urgent threat and downgrade messages.<sup>31</sup> The State supports the continuing use of graduated messages, which include a clear and concise description of the severity of the fire, a clear description of where the fire is and, where possible, where it is predicted to travel and the time expected before impact of the fire on particular communities.
36. The State will also adopt the OASIS Common Alerting Protocol (**CAP**) to provide a 'content standard' warning message system in the next fire season. CAP provides a consistent format with standardised content that can be disseminated efficiently. CAP is a digitally formatted template, in which messages are constructed using standard classifications and terminology. Before the next fire season, the State will review and refine the CAP terminology to be used in fire messages based upon the Commonwealth Policy document 'Emergency Warnings, Choosing your words'.<sup>32</sup>
37. Consistent with Counsel Assisting's proposed recommendation 2.2(e), the State has already taken steps to ensure that the changes to warnings will be implemented in time for the 2009/10 fire season.<sup>33</sup>
38. As noted above, community education and awareness is essential to the efficacy of warnings.
39. Counsel Assisting proposed longer term consideration of a new means of communicating the severity of a bushfire. Counsel Assisting gave an example of

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<sup>30</sup> The State refers to the material tendered through Rees setting out radio and website warnings in relation to each fire including Kilmore East (*Summary of Fire Location, Web and Radio Warnings for Kilmore East Fire*, Ex 79, CFA.001.016.0001) and the lack of evidence from the iECC and the Seymour RECC:

<sup>31</sup> Rees Ex 3, WIT.004.001.0001 at 0044-0046, [198]-[204].

<sup>32</sup> Proposed recommendation 2.2(c).

<sup>33</sup> Counsel Assisting and Professor Handmer have treated Annexure 31 to Rees' statement (*Community Threats, Alerts and Awareness Messages - 7 to 8 February 2009*, Rees (Annexure 31) Ex 3, WIT.004.001.0509) as if it were a direct pictorial representation of the CFA's website (rather than extracts of text not replicating formatting on the website) and have confused columns inserted in Annexure 31 recording the period of time during which the message was effective (using a 24 hour clock) with material that was displayed on the public website.

terminology similar to that used in cyclone warnings.<sup>34</sup> The State broadly supports this proposed recommendation and consideration will be given to a change to the means of communicating the severity of a bushfire over the longer term. However, as with the publication of fire danger indices (discussed below), the State needs to consider how best to ensure community action in respect of warnings that do not fall into the highest category.

### **Responsibility for Issuing Warnings**

40. The philosophy underlying the Australian Inter-service Incident Management System (**AIIMS**) is that fires should be managed at a local level. This means that warnings should be issued from the ICC, with the region and the iECC available to support the ICC as required. Much of the evidence before the Commission highlighted the importance of local decision making and the State strongly supports continuing local management of fires and local responsibility for issuing warnings.<sup>35</sup>
41. Nevertheless, there is a need for oversight in the command and control arrangements, particularly a role for the respective chief fire officers of DSE and CFA, other senior officers and the iECC to ensure that appropriate and timely warnings are issued to the community concerning the risk of bushfires. For example, the evidence before the Commission of the inability of the Kangaroo Ground standby command centre to contact the Kilmore ICC (which was responsible for issuing warnings for the Kilmore East fire) to alert it to information it had received and warnings it considered should be issued, demonstrates that the system must be improved to identify and rectify problems in the creation and rapid dissemination of warnings.
42. The Commission has heard some evidence in relation to the role of the local, regional and State level in the AIIMS structure.<sup>36</sup> In addition to the responsibility of the Chief Officer, each of these levels must also be responsible for ensuring that appropriate and timely warnings are issued and that any issues, such as those experienced at the Kangaroo Ground standby command centre are appropriately escalated and dealt with at a higher level.
43. The State agrees with recommendation 2.1(a) of Counsel Assisting that the *Country Fire Authority Act 1958* be amended to provide that the Chief Officer has

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<sup>34</sup> Proposed recommendation 2.2(f).

<sup>35</sup> Esplin T320:28; Brown T1651:24.

<sup>36</sup> The evidence the Commission has heard is limited in respect of the regional level.

responsibility for issuing warnings to the community concerning the risk of bushfires.<sup>37</sup> However, legislative amendment can take time. The State is committed to ensuring that, in practice, these issues are resolved before the 2009/10 fire season. The State is therefore taking the following steps:

- (a) Amending the Emergency Management Manual Victoria to identify the specific officer at each level (state, local and regional) responsible for providing timely and appropriate warnings;
  - (b) Putting in place predetermined arrangements so that another agency issues the warnings if the control agency does not have the capability to ensure timely warnings; and
  - (c) Amending the Emergency Management Manual to require that warnings meet agreed form and content standards.
44. The State proposes to review the performance of ICCs and the role of the Regional Emergency Coordination Centres (**RECCs**) and the iECC in the delivery of timely and accurate warnings and will report to the Commission on proposed changes by 30 September 2009.

#### **Dissemination of Warnings – National Emergency Warning System**

45. Following agreement reached by Council of Australian Governments in April 2009, Victoria is leading the establishment of a national emergency warning system (**EWS**) by October 2009, delivering warnings to all fixed and mobile telephones (based on billing address). Delivery of messages by this means will help ensure that those potentially affected by a fire receive information about it, even if they miss messages delivered by other means (such as the radio, or via the CFA website).<sup>38</sup>
46. A far-reaching public education campaign will accompany the introduction of EWS. Every effort will be made to complete this education campaign before the the 2009/10 fire season. This education campaign will continue in the longer term.

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<sup>37</sup> It is noted that this recommendation does not specifically address fires which are not CFA controlled fires, and the State anticipates further evidence will be led at a later point in that regard. However, the State's actions in relation to recommendation 2.1(a) go beyond the terms of the proposed recommendation of Counsel Assisting and apply equally to fires where DSE or MFB is the control agency. Insofar as there has been evidence in respect of the local level, it has focussed on the Kilmore fire.

<sup>38</sup> There is a proposed future capability to send messages to mobile phones in specified areas. The Commonwealth is funding further research into developing that capacity.

47. The State's role in the procurement and promulgation of EWS addresses Counsel Assisting's proposed recommendations 2.3.3(a), (b) and (c).

#### **Dissemination of Warnings – Single Website**

48. The State agrees with proposed recommendation 2.3.1 of Counsel Assisting and recognises the importance of having timely and consistent information posted to the CFA and DSE websites. On 7 February, the information available on the websites of the CFA and DSE was not consistent. To address the issue of consistency, and to speed up the process of having information posted to the websites, the State proposes to establish a single 'behind the scenes' website with single data entry and 'same time' uploads to the CFA and DSE websites. The CFA website will be promoted as the official bushfire website and the DSE site will remain available to ease capacity constraints<sup>39</sup> and for individuals who wish to continue using that site.
49. In addition, the State will increase the capacity of the CFA website to address the difficulties experienced by users during periods of peak demand.
50. The State agrees with the tenor of Counsel Assisting's proposed recommendation 2.3.1(c) and is exploring the technical capacity required, both on the website and at the ICC, to achieve this.

#### **Dissemination of Warnings – Other Media**

51. The State proposes to refine and improve the existing processes for dissemination of warnings to reduce the risk of warnings not being uploaded to the CFA website<sup>40</sup> or not being read out repeatedly on ABC radio.<sup>41</sup> The State agrees with Counsel Assisting's proposed recommendation 2.3.3(e) in so far as it relates to the use of radio broadcasts and websites and is taking the following further steps to improve the dissemination of warnings:

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<sup>39</sup> Professor Handmer identified capacity constraints as favouring multiple websites: Handmer T3123:5-T3123:11, T3123:13-3123:16, T3123:21-T3123:23.

<sup>40</sup> As occurred with the 1610 urgent threat message, which was delivered by John Haynes at 1639 on ABC 774, but which was not uploaded to the CFA website. See also the witness statement of Henshaw (to be tendered), WIT.3004.009.0096.

<sup>41</sup> As occurred with the 1610 urgent threat message for the Kilmore East fire, which named Kinglake (among other communities). That message was faxed to the ABC: Caughey T1701:31-T1702:3 and *Seymour fax log*, Ex 53, TEN.011.001.0001 and Caughey T1708 and T1709 makes it clear that Caughey faxed the 1610 urgent threat message including Kinglake to the ABC at 1634. That message was not read out by the ABC.

- (a) The Office of the Emergency Services Commissioner (**OESC**), in consultation with the CFA and DSE, will review the terms of the existing Memorandum of Understanding with the ABC (which requires the ABC to interrupt broadcasts so as to deliver warnings), with a view to agreeing a protocol with the ABC for both acknowledging the receipt of warnings and the frequency of the delivery of warnings on days (such as 7 February) where the volume of threat messages means it is not practical to read out each messages every 15 minutes.<sup>42</sup>
  - (b) The OESC will negotiate with commercial broadcasters who wish to act as emergency broadcasters (on the same terms and conditions as apply to the ABC), and thereby extend the reach of warnings delivered by radio beyond the audience of ABC. The OESC had already entered into an informal arrangement with Associated Communication Enterprises to provide emergency information.
  - (c) The CFA, OESC and DSE will examine the use of alternative 'unofficial' mechanisms such as Facebook and Twitter to alert the community to the 'official' sources of information.
52. The State agrees with the observations of Counsel Assisting that using multiple modes to disseminate warnings, where possible tailored to the needs of specific communities, is preferable even where some modes (such as the use of sirens) may only be of assistance in a limited number of small communities.

#### **Dissemination of warnings – Standard Emergency Warning Signal**

53. The Standard Emergency Warning Signal (**SEWS**) is a distinctive sound used nationally by police and emergency services to alert radio listeners and television viewers that an official emergency announcement is about to be made. SEWS is not location-specific and so, when used, is broadcast to those a long way from any potential threat.
54. SEWS was not used on 7 February 2009 as it was not part of then current practice of the CFA.<sup>43</sup> This decision was based on a review of the use of SEWS in the 2005/06 fires which found that:<sup>44</sup>

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<sup>42</sup> Stayner T1826:25-T1826:30; Stayner Ex 58, WIT.033.011.0001 at 0010, [27]; and *Emergency Broadcast Plans*, Stayner (Attachment G) Ex 58, WIT.033.011.0075.

<sup>43</sup> Rees T2483:11-T2485:13.

<sup>44</sup> Smith, *Debrief Outcomes Significant Victorian Fires December 2005 and January 2006*, TEN.002.001.0002; Esplin Ex 11, WIT.005.001.001 at 0020, [106]; Esplin T243:17-T245:9.

- (a) the authorisation process was such that SEWS was sometimes only used after the threat had passed;
  - (b) the high usage of SEWS had a 'barrage' effect;<sup>45</sup>
  - (c) use of SEWS caused confusion in the community; and
  - (d) repeated use of SEWS can de-sensitise the community, so that it does not 'grab attention'.
55. Counsel Assisting<sup>46</sup> submit that there is no evidence to suggest that the use or overuse of SEWS has caused significant confusion or inconvenience. The State acknowledges that little formal research has been conducted on this issue (or indeed on the efficacy of SEWS in general). However, there is substantial anecdotal evidence from observations of emergency services personnel to suggest that SEWS may have this effect.
56. Further, on 7 February 2009, radio stations were delivering the content of warnings for numerous fires as part of their ongoing coverage, including news bulletins. If SEWS had been used before each warning on that day, it would have been played approximately 510 times.<sup>47</sup>
57. On that basis, whilst the State does not agree with the proposed recommendation of Counsel Assisting that SEWS 'must be used in Victoria to precede each Urgent Threat Message', the State does agree that SEWS has a place within the warnings issued by the State. In order to ensure that a SEWS is effective and authorised in a timely fashion, the State will make amendments to the Emergency Management Manual and the Memorandum of Understanding with each emergency broadcaster.
58. Community education about the nature of emergency warnings is critical. If SEWS is to be used, the community must know what it means and how to respond; confusion creates risk. There is insufficient time before the next fire season to educate the Victorian community about SEWS<sup>48</sup> and, as such, the use of SEWS must be deferred until the 2010/11 fire season.

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<sup>45</sup> The ongoing use of SEWS can leave a listener feeling "bombarded" and may lead to the radio being switched off.

<sup>46</sup> Under key finding 2.3.2 (d).

<sup>47</sup> Rees T2486:31.

<sup>48</sup> See Lawson T2856:4-T2586:23, Handmer T3160:18-T3161:14 and Handmer Ex 96, WIT.044.001.0002 at 0025-0026, [110]-[112] on the importance of community education before using SEWS.

## Sirens

59. The State agrees with Counsel Assisting's proposed recommendation 2.3.4(a) to the extent that it requires that 'the OESC and CFA work together to develop state-wide guidelines in relation to the use of sirens for bushfires'. It also supports the principle underpinning Counsel Assisting's proposed recommendation 2.3.4(b) that certain communities may seek, and benefit from, the continued use or introduction of a siren as an 'alert' with a specific meaning (for example, 'seek further information') which is understood by that community.
60. The State does not support the universal use of CFA brigade sirens as a means of alerting the community to a bushfire. Brigade sirens are used to call the brigade to respond to an incident, which may be a false alarm or a non-fire related event, such as a car accident. Increasingly, brigade members are called to respond to incidents by use of pagers, and, as such, not all CFA stations are equipped with sirens.<sup>49</sup>
61. The use of sirens by local communities must be accompanied by community education and engagement so that those hearing the siren know what it signifies and how to respond.<sup>50</sup> Even in Ferny Creek,<sup>51</sup> where a siren system was implemented following community demand, support and engagement, some people within that community failed to understand the significance or meaning of the siren and what action they should take when hearing it.<sup>52</sup> It must also be recognised that, depending on the layout and topography of a particular town, not everyone in a community will be able to hear a siren.
62. On that basis, the remaining aspects of Counsel Assisting's proposed recommendation 2.3.4 will be considered as part of the development of the State-wide guidelines prepared by the OESC and the CFA.

## Publication of Fire Danger Index forecasts

63. The State accepts that the existing system, whereby information about the fire danger rating is conveyed to the public as 'Low, Medium, High, Very High or

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<sup>49</sup> Rees T53:28-T54:3.

<sup>50</sup> For example, Paton T2302:7-T2302:31, T2303:9-T2303:18; Handmer T3084:18-T3084:27, T3124:27-T3124:30; Rhodes T3300:1-3300:21.

<sup>51</sup> The siren in Ferny Creek is intended to alert the community to activate their fire plans, not to evacuate: Esplin T285:16-T285:28.

<sup>52</sup> *Community Alerting For Bushfire – A Local Solution for a Local Need The Ferny Creek Fire Alert Siren Follow Up Evaluation 2002* TEN.002.001.0320 at 0327-0328 showing some members of the community believed the siren was a signal to evacuate.

Extreme' must be improved and agrees in principle with Counsel Assisting's proposed recommendation 2.3.5 about the publication of Forest Fire Danger Index (**FFDI**) and GFDI forecasts.

64. The FFDI and GFDI are numerical values calculated by reference to a number of factors. The FFDI is based on the drought factor, temperature, humidity, average wind speed, and assumed fuel load.<sup>53</sup> The modelling underpinning the FFDI and GFDI is less accurate for values over 100,<sup>54</sup> and on 7 February 2009, the FFDI and GFDI values calculated were well over 100. Parts of the community are now aware of the significance of an 'FFDI over 100' but fires can cause fatalities at levels well below 100, even at figures below 50.<sup>55</sup>
65. The Australasian Fire Authorities and Emergency Services Council (**AFAC**) is reconsidering whether FFDI and GFDI figures should be part of warnings issued to the public<sup>56</sup> and the State will examine the outcome of its considerations before implementing any recommendation made by the Commission arising out of Counsel Assisting's proposed recommendation 2.3.5(a).<sup>57</sup>

#### **D. EVACUATION**

66. The State agrees with the proposed recommendation of Counsel Assisting that the pecuniary interest exception in section 13(4) of the *Country Fire Authority Act* and section 24(7) of the *Emergency Management Act* be retained pending the final report of the Commission.
67. The State agrees that there is scope for communities to develop plans to evacuate in the event of a bushfire.
68. The State agrees that the CFA policy 'Advice to the community before and during wildfire' should be amended to allow CFA personnel to recommend that particular households, communities or locations should plan to leave early, based on an assessment of the defendability of the household, the community or location in question and the vulnerabilities of the people there. However, protocols need to be developed and implemented and CFA personnel trained to undertake such an assessment. People who receive an assessment would need to understand both

<sup>53</sup> 12.5 tonnes per hectare (see Rees Ex 3, WIT.004.001.0001 at 0053-0054, [237]) which is likely to be less than the actual fuel load in some areas burned on 7 February 2009. Tolhurst noted that the assessed fuel loads were closer to 25 tonnes per hectare: Tolhurst T1024:23-T1025:26.

<sup>54</sup> Rees T2696:28-T2697:14; Williams T749:23-T749:31.

<sup>55</sup> Rees gave the example of the fatalities in the Dandenongs fire (FFDI under 50) and the death of firefighters in Linton (FDI in the 40s): Rees T1919:28-T1919:31.

<sup>56</sup> Edwards T2895:28-T2895:30, T2900:6-T2900:25.

<sup>57</sup> The State also repeats its comments above as to the need to ensure the community does not become complacent in respect of FDI values below 100.

the scope of the assessment and that, irrespective of the outcome of the assessment, it may still be very sensible and appropriate for the occupants of the house to leave early.

69. The State agrees that warnings to the community should, in certain circumstances, include a recommendation about leaving. However, the State is very cautious about the use of the word 'evacuation' in warnings as it may involve a perception by some in the community of a more organised exercise than simply leaving early.
70. More generally, the State submits the Commission should not make any recommendations that would alter existing policies in relation to evacuation in Victoria. In particular:
- (a) Whilst there is scope for including, in warnings, a recommendation that people leave an area immediately, it is not appropriate for Incident Controllers and control agencies to make specific recommendations about evacuation.
  - (b) Whilst Counsel Assisting accept that late evacuations are dangerous they have sought to advance a general proposition that safe evacuation may be possible when a fire is already burning. As an example of such a safe evacuation they have contended that the communities east of the path of the Kilmore and Murrindindi fires could have been safely evacuated to the north and east before the wind change.<sup>58</sup> The specific time at which Counsel Assisting contend a safe evacuation could have taken place is not identified. Counsel Assisting also fail to take into account that weather predictions, including wind change predictions, are not always accurate – which proved to be the case on 7 February when the wind change arrived earlier than predicted. The State cannot agree with the general proposition advanced by Counsel Assisting that safe evacuation may be possible when a fire is burning. Whether an evacuation is safe will depend on a broad range of factors including the size of the fire, weather conditions, the intensity of the fire and the speed at which it is spreading and spotting. It will also depend upon the size, demographics and geographic location of the relevant community.
  - (c) Counsel Assisting have recommended the designation of emergency relief centres within the municipalities, which should have facilities for sheltering, feeding and personal hygiene for emergency-affected people and their

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<sup>58</sup> Submissions of Counsel Assisting at 3.2(d).

pets.<sup>59</sup> There are already multiple venues designated as relief centres in each municipality in Victoria. Under current OESC policy, the relevant Council's Municipal Emergency Response Officer decides whether to open a centre based on the risk assessment and advice of the control agency and the Municipal Emergency Response Coordinator (Victoria Police). Implementation of the proposed recommendation would involve activating these centres more frequently on an anticipatory basis, rather than when an emergency has actually occurred. Before implementing a recommendation by the Commission of this nature, the State would need to determine, in consultation with Councils, what the likely financial, staffing and social impact of this proposal would be, including the consequences of the centre being unavailable more often for its primary purpose.

71. In relation to evacuation generally, particularly forced or directed evacuation, the State makes the following observations:
- (a) In Victoria there is currently no general power to compel evacuation and Victoria Police will not evacuate persons with a pecuniary interest in a property if they refuse to evacuate.<sup>60</sup>
  - (b) A late evacuation involving large numbers of people is inherently dangerous and may result in significant loss of life.<sup>61</sup> Dr Haynes gave evidence that the majority of civilian fatalities in bushfires between the commencement of written records and early 2008 occurred while victims attempted to flee the flames during late evacuation.<sup>62</sup> The potential for people to be trapped in traffic on roads which may not have the capacity to handle the volume of traffic, and which may result in them being exposed to smoke, noise, heat, flames and general panic may pose a significant risk to human life. As such, the State submits that such a recommendation should not be made.
  - (c) Large scale evacuation during a fast moving severe bushfire poses significant logistical and practical problems and results in significant social

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<sup>59</sup> Recommendation 3.4(a).

<sup>60</sup> Walshe T636:5 – T636:18.

<sup>61</sup> Gledhill Ex 85 WIT.025.002.0001 at 0011, [34]; AFAC position papers attached by Rhodes to his statement: Rhodes (Document 4-5) Ex 101, WIT.3004.002.0038 at 0044-0045 and discussed in his statement at: Rhodes Ex 101 WIT.3004.002.0001 at 0034 and 0039-0041, 0091, [94], [112]-[118], including that 22 people died attempting to evacuate in the 2003 Cedar fire in Southern California; evidence of McCaffrey T3451:25-T3451:27 where Dr McCaffrey stated that although large numbers had not been lost in evacuations 'to some degree that's maybe luck'.

<sup>62</sup> Haynes Ex 16, WIT.001.001.001 at 0009; Haynes T3419; and McCaffrey T3454:5-T3454:7.

disruption.<sup>63</sup> If an evacuation direction or order had been given on the morning of 7 February to the areas generally considered to be of the highest risk in the State (including the Dandenong, Otway and Yarra Ranges regions) this may have affected up to 1 million people. However, the whole of the State was considered to be under extreme fire risk on that day.<sup>64</sup> Precisely where evacuees would be evacuated to given the extreme fire conditions across the State on 7 February has not been the subject of evidence before the Commission. If such a large scale evacuation were to take place, decisions would need to be made about where evacuees, their possessions and possibly pets would be evacuated to, for how long they would be evacuated (given that in some areas the threats may persist for an extended duration) and how evacuees would be accommodated during the period of evacuation.<sup>65</sup>

- (d) The infrastructure in Victoria and the road network does not support large scale evacuations.<sup>66</sup>
- (e) There is a risk that a policy of evacuation could lead to complacency or confusion, with some individuals believing that they do not need to prepare for bushfires because the State will evacuate them.<sup>67</sup> A policy of evacuation during a bushfire threat might encourage some people to inadequately prepare their property for bushfire and to adopt a more passive approach of simply waiting for an order to evacuate. This could result in people failing to prepare contingency plans, putting them at risk if they have not left their property and the bushfire threatens sooner than expected. People's self reliance and their awareness of bushfire danger might be lost and they may have no idea what to do in the event they do not receive a warning and face a bushfire.<sup>68</sup>
- (f) There is a danger that regular (or even irregular) evacuations would lead to complacency (due to the 'boy-who-cried-wolf' factor) if fires did not directly impact upon residents. Residents who are forced to evacuate on even a small number of occasions, in circumstances where no bushfire eventuates, may well ignore directed or forced evacuations in future.<sup>69</sup>

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<sup>63</sup> McCaffrey T3449:27–T3449:31.

<sup>64</sup> Esplin T535:20–T535:21.

<sup>65</sup> Rhodes Ex 101, WIT.3004.002.0001 at 0094.

<sup>66</sup> Esplin T534:23 -T535:27.

<sup>67</sup> McCaffrey T3453:14-T3453:21.

<sup>68</sup> McCaffrey T3455:3–T3455:29.

<sup>69</sup> McCaffrey T3455:16-T3455:29.

- (g) Contrary to popular perception, evacuations are not mandatory in the United States and, in practice, able-bodied adults are not forced to leave their property.<sup>70</sup> In fact, a fair proportion of people choose not to evacuate.<sup>71</sup> Evacuations do not take place on 'red flag days' or in circumstances where no fire has commenced.<sup>72</sup> The evacuations which take place in the United States occur when fires are actually threatening. In any event, the United States experience with evacuation is not readily transferrable to Australia. In particular, California has different vegetation, fuels and bushfire behaviour compared to Australian bushfires. In Australia, the speed and severity of bushfires frequently limits the time available for a safe mass evacuation of communities. Australian bushfire burning under extreme conditions in eucalypt forests can spread in a few hours over an area that United States' fires would take many days to burn through.<sup>73</sup>

#### **E. PREPARE, STAY AND DEFEND OR LEAVE EARLY**

72. The State considers that the 'prepare, stay and defend or leave early' policy should be revised and that there should be much more emphasis on the protection of life by leaving early. The evidence before the Commission shows that up until 7 February the prepare, stay and defend or leave early policy represented 'best practice'. In giving evidence to the Commission, Mr Esplin conceded and the State agrees that the 'stay or go policy' should be reopened, reviewed and modified.<sup>74</sup>
73. The State acknowledges that some houses that were thought to be defensible were not given the extreme nature of the conditions on 7 February. In light of this, in extreme weather conditions many properties, even if well prepared, may not be able to be defended, meaning that the only safe decision for residents of those properties is to leave early. The State proposes that the following be implemented before the next fire season:

<sup>70</sup> McCaffrey Ex 106, WIT.038.001.0001 at 0005.

<sup>71</sup> McCaffrey T3424:11-T3424:12.

<sup>72</sup> McCaffrey T3449:4-T3449:5.

<sup>73</sup> Gledhill Ex 85, WIT.025.002.0001 at 0022, [66].

<sup>74</sup> The prepare, stay and defend, or leave early policy is grounded in extensive research and analysis of the best available data up to 7 February 2009: Haynes (Ex 16) WIT.001.001.0001; Haynes T453:7-T453:27, T455:28-T456:16; Gledhill (Ex 85) WIT.025.002.0001 esp [13]-[44], [55]. [82]; Handmer T3188:2-T3188:25; Tolhurst T1789:24-T1789:30; McCaffrey T3453:29-T3456:26; Rhodes Ex 101, WIT.3004.002.0001 at 0033-0041, 0071-0072, 0081ff.

- (a) key messages will be changed to emphasise the following points:
- (i) protection of human life is the paramount aim;
  - (ii) the safest policy is to leave early so that you are not in an area during a bushfire and that the risks of staying to defend include the risk of death;
  - (iii) whether or not a property is defensible will depend on features of the house, the surrounding land, vegetation and conditions on the day – there can be no guarantee that any house is defensible in all conditions;
  - (iv) those living on the urban fringe and in urbanised communities in bush settings are at risk of bushfires and must have bushfire survival plans;
  - (v) there is no guarantee that you or your house will survive a bushfire;
  - (vi) there is no guarantee you will get a warning;<sup>75</sup>
- (b) the fire services will support the members of the community in their decision-making by:
- (i) clarifying what 'leave early' means and identifying triggers for people to leave;
  - (ii) providing guidance, including an on-line risk assessment tool, to help residents better assess the defensibility of their homes and the risks they face under different weather and fire conditions;
  - (iii) continuing to publicise the season outlook as is presently done;
  - (iv) issuing a bushfire outlook up to three days before severe weather; and
  - (v) improving messages issued during bushfires by implementing CAP.

74. The State will continue to highlight the existing messages that people who intend to stay and defend their property should be physically fit and able, psychologically prepared and understand that the prospects of successfully defending a house will be lower if there is only one able-bodied adult there to stay and defend.

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<sup>75</sup> Professor Paton confirmed that people must be ready to respond on the day of an emergency without an official warning: Paton T2327:11.

75. In the lead up to 7 February 2009, warnings were issued by the fire services and the Premier about the severity of the fire risk. The State proposes to build on the experience of issuing those messages and issue bushfire outlooks up to three days before periods of expected high fire danger. These outlooks will be issued regularly and contain an indication of the severity of the fire risk. These bushfire outlooks will also serve as a platform on which to reiterate key advice on bushfire safety.
76. Changes to the key messages and support to be offered to communities will require re-training of CFA's volunteer and career fire-fighters. With over 60,000 members, it will not be possible to retrain all members before the coming fire season. The CFA will use its briefing mechanisms to deliver the changes to its members as fully as possible before and in the course of the coming fire season.
77. Community education is inextricably linked to this issue and the State agrees that there should be an intensive advertising and awareness campaign in the lead up to the upcoming fire season to accommodate the changed messages. The evidence of witnesses before the Commission demonstrates that they have interpreted existing community education messages in a variety of ways, and further community education must take account of current awareness levels, community behaviour and practices. The State also proposes to implement a longer term campaign (commencing before the next fire season) designed to achieve long-term behavioural change using a 'place-based' community education and engagement program and various media, including TV, radio, the internet and outdoor messages.
78. The State agrees with the proposed recommendation of Counsel Assisting that the CFA consider how to provide individual advice to residents in bushfire risk zones about the defendability of their homes. CFA will be developing a program for this purpose, which will take into account concerns about delivery<sup>76</sup> and the time to roll out such a program.
79. Further, the State is of the view that an additional aspect of prudent preparation involves households considering appropriate insurance cover as a means of protecting against property loss.

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<sup>76</sup> Rees T2477:9.

## F. FIRE REFUGES

80. The evidence before the Commission shows that where bushfire plans are not effective people seek refuge in places of last resort within the community. The State recognises that there must be additional options for people who are unable to shelter in a prepared home or are caught in the open during a fire. Accordingly, the State submits that consideration should be given to incorporating fire refuges into bushfire policies as places of last resort.
81. Whilst the State agrees with the incorporation of fire refuges as places of last resort into the mix of options to be included in bushfire plans, it will not be possible for this to occur in time for the next bushfire season. The State submits that, if the interim report includes any findings or recommendations about fire refuges, this could lead to unrealistic community expectations about the availability of fire refuges or other safe places of shelter for the next fire season.
82. The State, through the OESC and the CFA, intends to review the *Fire Refuges in Victoria, Policy and Practice (the Fire Refuges Policy)*<sup>77</sup> and will consult widely, particularly with the Municipal Association of Victoria.
83. The State also submits that the Commission should consider other options such as safer places in a neighbourhood, informal places of shelter and township protection plans.
84. A neighbouring property may be capable of providing a safer place for people to shelter than their own home. Relocation to an adequately prepared place within the immediate vicinity has the benefits of involving less disruption, will minimise time spent travelling and can be less distressing to those involved.<sup>78</sup> Informal, local places of shelter provide a viable alternative to formally designated refuges and also overcome some of the issues associated with official fire refuges including the need for travel to these sites and management and implementation issues.<sup>79</sup>
85. A version of township protection planning currently forms part of CFA's operational preparedness. This process dates to the mid-1960s and was originally led by CFA and driven through local consultative committees. Under this scheme, a consultative process is used to determine local vulnerabilities such as concentrations of life risk (eg schools, nursing homes, hospitals), key assets,

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<sup>77</sup> Fire Refuges Policy: Esplin (Attachment 3) Ex 11, WIT.005.001.0568.

<sup>78</sup> On 7 February 2009 some residents of Marysville chose a sporting field as a safer place while some residents of Kinglake gathered around their local fire station.

<sup>79</sup> Rhodes Ex 101, WIT.3004.002.0001 at 0102; and RhodesT3558:30-T3559:4

access and egress routes, potential places of local retreat and/or assembly. The aim is to determine the level of fire fighting and other resources required by individual communities during a fire emergency.

86. The State considers that the possibility of extending these plans to engage communities more broadly is viable and has already been achieved in some communities.<sup>80</sup>
87. A township protection plan that would assist the emergency services and a town's community could incorporate three key components:
- (a) A mapping component that identifies and details demography and topography of a township and surrounding area. This includes the identification of assets, heritage areas, critical infrastructure and community gathering locations;
  - (b) A consultation process to explore local knowledge, history, culture and people's needs for safety and protection during an emergency incident; and
  - (c) Detail the actions community members could take when fire threatens their town, including neighbourhood safer places.
88. For the next bushfire season, the State will start identifying appropriate sites as neighbourhood safer places and will educate the community about the appropriate use of those places. The State will also commence developing township protection plans in consultation with communities in some high bushfire risk locations.
89. The State submits that recommendations should ultimately be made by the Commission about formal fire refuges but submits those recommendations should await the outcome of the OESC review for the following reason:
- (a) If recommendations are made now, the community may develop the unrealistic expectation that fire refuges will be available for the next fire season. Such community expectations should not be promoted as it is unlikely that fire refuges could be safely identified and assessed within this time frame.
  - (b) Fire refuges cannot be properly identified until consideration has been given to the number of people who are likely to use them and the number of cars which need to be parked at the refuges.

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<sup>80</sup> For example, Woods Point and Halls Gap.

- (c) Given that fire refuges are put forward by Counsel Assisting as 'an option of last resort', time must be allowed for the carrying out of community education about their use.
  - (d) Given that fire refuges are, by definition in the fire risk area, it is imperative that there be appropriate standards. Further evidence needs to be given before the Commission about this subject.
90. The State also emphasises that:
- (a) The 'one size fits all' approach to fire refuges may not necessarily be appropriate for all communities but may assist some communities in certain circumstances.<sup>81</sup>
  - (b) There needs to be community education and information about only using refuges as a place of 'last resort'. People would also need to be aware of how long it would take to safely reach the fire refuge and to have in place a contingency plan if things go wrong and attending the refuge is not possible.
91. At this time the Commission has not considered issues relating to defensible space, vegetation clearance and appropriate building standards and facilities for fire refuges. In the absence of analysis of such matters, it is premature to make recommendations that may encourage the proliferation of fire refuges which may ultimately expose their intended occupants to danger if they are not appropriately located, constructed and maintained.
92. If local councils or communities identify fire refuges or safer places in neighbourhoods before the next fire season, the CFA agrees that, given the paramount goal of saving lives, it ought where and when possible provide resources to assist in the defence of those identified community fire refuges or neighbourhood safer places whenever they may be directly threatened by fire.<sup>82</sup>
93. The State acknowledges that exposure to tort liability may deter local councils from identifying and designating fire refuges. The State will ensure that the review being undertaken of the Fire Refuges Policy considers this issue.

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<sup>81</sup> As an example, the Long Tunnel Extended Gold Mine (informal) refuge in Walhalla which appears to have gained widespread community acceptance as a place of refuge notwithstanding it is not a formal designated refuge: Seear Ex 88, WIT.042.001.0001.

<sup>82</sup> This is dependant upon the availability of CFA appliances and the nature of the fire.

**G. SCHOOLS AND CHILDREN'S SERVICES**

94. On 8 February 2009 the Department of Education and Childhood Development (**DEECD**) acted quickly to implement an enhanced procedure for closing schools and to investigate the fire safety levels of refuges in a number of schools.<sup>83</sup> The revised school closure process was implemented during February and March 2009.<sup>84</sup>
95. The State is currently revising its policies in relation to bushfire response and schools. The policies as revised by the State through DEECD will improve bushfire and emergency preparedness of schools, children's services and regional and central office.
96. In considering policy options, the State through DEECD will proceed on the assumption that, to the greatest extent possible, situations where decisions have to be made about evacuating children and taking shelter in a school during a fire event should be avoided.<sup>85</sup>
97. Policies and processes are being developed by the State, through DEECD, which are intended to improve the bushfire and emergency preparedness of schools, children's services and regional and central offices.
98. The policies and processes being reviewed and prepared by the State will consist of the following:
- (a) The conduct of twice yearly certification of School Emergency Management Plans through the School's Compliance Checklist.
  - (b) The promotion in each school's Emergency Management Plan of a safer place for emergency congregation in the event of a bushfire or other disaster.
  - (c) The upgrading and enhancement of equipment for schools so as to defend those congregating in any identified safer place.
  - (d) The creation and maintenance of a register of schools and children's services at high risk.
  - (e) A revision of DEECD's existing Bushfire Safety Checklist (for schools and children's services facilities).

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<sup>83</sup> Cook Ex 148, WIT.3029.001.0001 at 0015-0017 and 0018-0019, [64]-[74] and [76]-[81].

<sup>84</sup> Cook Ex 148, WIT.3029.001.0001 at 0015-0018, [65]-[76].

<sup>85</sup> Cook Ex 148, WIT.3029.001.0001 at 0020, [86].

- (f) The finalisation of a new Schools Emergency Management Manual with explicit references to bushfire and wildfire response in high risk locations.

#### H. NEED TO IDENTIFY BUSHFIRE RISK ZONES

99. The State agrees with the proposed recommendations of Counsel Assisting that bushfire risk zones need to be identified for the purposes of establishing or promoting neighbourhood safer places and township protection plans.
100. The State submits the Commission should make a recommendation that the CFA identify and designate areas at risk of bushfire throughout Victoria. The CFA has already identified general precincts (farming and rural living, interface living, remote bush and parks) within Victoria as bushfire risk zones.
101. The State is also developing a risk tool called the Victorian Fire Risk Register which provides a more detailed analysis of particular buildings and areas at risk. The Register is being trialled as part of the Integrated Fire Management Planning strategy.<sup>86</sup> The outcome of that trial is not yet known and will not be known in time for the Commission to report on an interim basis.
102. Further, it must also be recognised that there are already in existence processes pursuant to which land may be designated as at increased risk of bushfires, namely:
- (a) the Wildfire Management Overlay in Planning Schemes which is used to identify areas where the intensity of wildfire is significant and likely to pose a threat to life and property;<sup>87</sup> and
  - (b) the designation of Bushfire Prone Areas under the Building Regulations.<sup>88</sup>
103. The State considers it premature for the Commission to make recommendations in relation to the sophisticated identification of 'bushfire risk zones' until such time as the existing and foreshadowed approaches to identification of bushfire risk areas has been the subject of evidence and analysis.
104. The State submits that the Commission should not make Counsel Assisting's proposed recommendation 7(a) insofar as it relates to fire refuges (both generally and in relation to schools) for the reasons set out above.

<sup>86</sup> Free Ex 39, WIT.049.001.0001 at 0023-0024, [81].

<sup>87</sup> Clause 44.06 purpose of the Wildfire Management Overlay.

<sup>88</sup> Until 10 March 2009 regulation 804 of the *Building Regulations* 2006 provided that a Council may determine areas within its municipal district as designated bushfire prone areas.

## I. DETECTION OF FIRES

105. The State submits that the Commission should make recommendations to provide for the accurate and timely prediction of fires both at ICC level and at the iECC. The State agrees that such information should be shared, both for the purpose of warnings and for the purpose of co-ordinating a strategic response to fires.
106. The State proposes to:
- (a) train additional ground observers and fire behaviour analysts before the next fire season;
  - (b) locate fire behaviour analysts in priority ICCs as well as in the iECC;<sup>89</sup>
  - (c) increase the focus on intelligence gathering from sources such as field reports, risk maps, aerial photography and surveys before the bushfire season; and
  - (d) improve the information flow from the fire-ground to Incident Management Teams (**IMTs**) by using 'Intelligence Officers'<sup>90</sup> within the IMTs to improve the collation, analysis and flow of information.
107. Fire spread prediction based on fire behaviour modelling is a relatively new tool in Victoria. Following the 2006 Great Divide fires, a course in fire behaviour analysis was established and the 2008/09 fire season was the first time that fire behaviour analyst personnel had been used in a regular, rostered capacity in the iECC.<sup>91</sup>
108. In agreeing that recommendations should be made about the use of predictive maps, the State submits that the Commission should not draw adverse inferences in this regard. The Commission has heard very little evidence in relation to the Murrindindi fire. When examining Mr Waller, Counsel Assisting specifically noted that the Murrindindi fire would be considered in the next block of hearings.<sup>92</sup> As to the Kilmore East fire, while the Commission has heard evidence from Mr Rees and some other witnesses, the State has not had the opportunity to call evidence it would wish to in order to address the proposed findings of fact, and there has been little evidence from the iECC or the RECC.<sup>93</sup>

<sup>89</sup> Which Sutton described as the most effective way to improve the intelligence available to those undertaking fire predictions: Sutton T4073:20-T4073:27.

<sup>90</sup> In practice, in 2009/10 bushfire season, an intelligence officer in most cases will be a specifically designated situation officer.

<sup>91</sup> Sutton Ex 120, WIT.3024.001.0008 at 0010, [8]-[10].

<sup>92</sup> Waller T4378:3-T4378:13.

<sup>93</sup> The Commission should be cautious about making findings of fact, particularly as the State is broadly in agreement with Counsel Assisting's recommendations. The findings of fact proposed by Counsel Assisting in paragraphs: 2.2(g); 8.1(c), (e), (g), (i)-(m), (o), (p); 8.2(a), (d); 9.1(a)-(d);

109. The approach of the fire services on 7 February 2009 was to respond with a heavy initial attack.<sup>94</sup> For example, after the Kilmore East fire was first reported at 1149,<sup>95</sup> by 1202 there were 13 brigades in attendance, and by 1250, four aircraft were working on the fire after the RECC received a request for air support at 1201.<sup>96</sup> It was not suggested (and there was no evidence that) the initial operational response to the Kilmore East fire would have been different if Kangaroo Ground had been the ICC in charge of the fire, or if a Level 3 incident controller had been present at the Kilmore ICC earlier on 7 February.<sup>97</sup> While the heavy initial attack on the Kilmore East fire was not ultimately successful, and it crossed the Hume Freeway at approximately 1400, the heavy initial attack on the Ferntree Gully fire was successful. The Ferntree Gully fire had the potential to cause widespread loss of life. The response to that fire was successful in controlling that fire and demonstrates the potential of the fire fighting services to control fires with a heavy initial attack.<sup>98</sup>
110. Whilst valuable, the limitations of fire predictions must also be recognised.<sup>99</sup> Firstly, the accuracy of predictive work depends on having available a sufficient volume of accurate data on the location of the fire and topographic and other conditions. Where there is a fast-moving fire, or a fire in a remote location with limited opportunities for observation, there may not be very much information on which to base predictive work. Secondly, it must be recognised that inaccurate predictions (including predictions based on inaccurate or out of date information) have the potential to put people in harm's way. There is a tension between timeliness and accuracy.
111. On 7 February 2009, the ability of the fire services to predict the path of the fires, and particularly the Kilmore East fire,<sup>100</sup> was severely restricted by the conditions

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9.2(a); 9.3(a)-(c), (e); and 10(i) are either not supported by the evidence heard in this Commission or the evidence in relation to those matters is incomplete.

<sup>94</sup> Waller Ex 6, WIT.002.002.0001 at 0081, [275]-[276]; Rees T1852:17-T1852:30.

<sup>95</sup> Second witness statement of Rees Ex 4, WIT.004.002.0001 at 0003, [14]. The fire was reported by the Mount Hickey fire tower and 000 calls.

<sup>96</sup> Creak Ex (to be tendered) WIT.3004.008.0309 at 0317, [34]-[35].

<sup>97</sup> Cowan stated that the only thing that might have been done differently had the Kangaroo Ground ICC been in charge of the fire related to warnings: Cowan T3762:2-T3762:15.

<sup>98</sup> Rees T2660:10-T2661:29.

<sup>99</sup> McCormack, in the Kangaroo Ground fire tower said there are only two predictable things about fire, one being 'that they are completely unpredictable': McCormack T4105:21- T4105:29.

<sup>100</sup> Pending full evidence of the behaviour of the Kilmore East fire and the conclusion of evidence relating to the management of that fire, no findings of fact should be made. The matters following regarding the behaviour of the Kilmore East fire are put forward by the State at this stage to illustrate the limitations of fire predictions on 7 February 2009.

on the day and the location of the fires.<sup>101</sup> After a line-scan was conducted at approximately 1245,<sup>102</sup> no further line-scans could be conducted of the Kilmore East fire until 2145.<sup>103</sup> Without aerial surveillance, the only verified reports of fire location came from the fire ground (eg where fire crews were in attendance around Wandong<sup>104</sup>), fire towers,<sup>105</sup> a report into the iECC from a helicopter working on asset protection at around 1530<sup>106</sup> and reports received via the Incident Management System (**IMS**). The evidence before the Commission has shown that there was very little intelligence on the spread of the Kilmore East fire as it travelled east of the Hume Freeway in the Mt Disappointment forest. The evidence to date shows that the fire was observed to have taken hold of Mt Disappointment at around 1530-1545<sup>107</sup> and that spot fires started in the Humevale area even earlier, at around 1515. Significant fire activity started in Arthurs Creek and Strathewen at around 1600, shortly after the fire front reached Mt Disappointment.<sup>108</sup>

112. A number of witnesses gave compelling and graphic evidence about the fire behaviour they witnessed on 7 February 2009. In describing fire activity in the Arthurs Creek, Strathewen region at about 1600, Captain McGahy referred to the rapid growth of the fire, with countryside between growing areas of fire exploding, and referred to a 'blazing inferno' in the area into Strathewen.<sup>109</sup> Ms Keating, in the Kangaroo Ground fire tower, described fire activity in the St Andrews area at 1605 as though a bomb had been dropped.<sup>110</sup> While the term 'spot fires' has been applied to these fires, they were not spot fires that behaved in the usual way. Rather, they quickly developed into significant fires in their own right.<sup>111</sup> A number of witnesses, including the fire behaviour experts Dr Tolhurst and Mr Sutton, and

<sup>101</sup> Eg Cowan T3756:27-T3757:17 (including that it was too dangerous to put ground observers into the Mt Disappointment state forest).

<sup>102</sup> *Kilmore Run 1*, 12.33 07/02/2009, *Kilmore Run 2*, 12.33 07/02/2009, Ex 57, TEN.017.001.0001; Tolhurst T1736:23-T1736:29.

<sup>103</sup> Second statement of Rees Ex 4, WIT.004.002.0001 at 0004, [16].

<sup>104</sup> *Annexures to Supplementary Witness Statement of Russell Rees*, Rees Ex 2, WIT.004.002.1459.

<sup>105</sup> The Strathewen fire tower was evacuated at approximately 1436: Keating T3228:3-T3228:14.

<sup>106</sup> Sutton T4091:3-T4091:12.

<sup>107</sup> A caller to 3AW at 1545 stated 'Mt Disappointment is ablaze': *3AW Transcript* CFA.001.016.0279.

<sup>108</sup> The McGahy logbook: *Redacted version of David McGahy (Captain Arthurs Log of events for Creek CFA) – 7 Feb* Ex 68, TEN.019.001.0001\_R at 0003\_R records a call to a fire 2kms east of Eaglesnest Rd, Strathewen. Captain McGahy gave evidence of the nature of the fire activity observed from that call out to the period around 1600: McGahy T2248:5-T2250:25. See also Brown T1641:2-T1641:10; Barca T3477:13.

<sup>109</sup> McGahy T2250:6-T2250:25. Nb also the evidence of Brown of fire at his home in Strathewen at 1610: Brown Ex 48, WIT.029.001.0001 at 0001-0002, [5]-[6].

<sup>110</sup> Keating Ex 98, VPO.001.002.0237\_R at 0243.

<sup>111</sup> Sutton T4092:28-T4093:16.

very experienced CFA members such as Mr Cowan acknowledged that the behaviour of the Kilmore East fire was beyond the parameters of current modelling.<sup>112</sup> In short, the extreme fire behaviour observed in the Kilmore East Fire and other fires was beyond the experience of very experienced fire fighters and could not have been predicted using current modelling.<sup>113</sup>

113. The various predictive maps for the Kilmore East fire produced in the iECC and at Kangaroo Ground vastly underestimated the rate of spread of that fire. Had those maps been used to issue warnings to communities and had those warnings included indicative times of impact, those warnings may have put people at heightened risk by suggesting to them that they had more time to leave than in fact was the case.
114. Given what is now known about fire in the St Andrews and Strathewen areas around 1600, any warning issued at around 1500 would have come too late for residents to leave safely. As Cowan observed, by 1500 or 1600 it was 'far too late for any evacuations'.<sup>114</sup> Further, as detailed below, the evidence before the Commission suggests that the State would have been unable to issue effective threat warnings between 1440 and 1500 to the communities of Kinglake, Kinglake West, Strathewen, St Andrews, Steeles Creek, Flowerdale and surrounding areas in a way that would have changed the tragic outcome.<sup>115</sup>
115. As detailed above, due to the behaviour of the fire, there were limited opportunities for observation and any messages issued in the time frame suggested by Counsel Assisting may have been misleading. Mr Cowan gave evidence that, upon arrival at the Kangaroo Ground ICC, at approximately 1330, he conducted a 'crude'<sup>116</sup> assessment, which identified Kinglake and Flowerdale (amongst others) as areas that would be affected by the Kilmore East fire.<sup>117</sup>

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<sup>112</sup> Cowan T3761:15-T3761:31; Sutton T4068:18-T4068:21, T4094:7-T4094:23. The *CRC Interim Report* Ex 126, CRC.300.001.0001\_R at 0070\_R-0071\_R, Ch I, 53-4 referred to the fact that the mean rate of spread of the Kilmore East and Murrindindi fires was two to three times faster than predicted by the FFDM, and up to 1.5 times faster than predicted by the Project Vesta model, without even taking into account the contribution of spotting to the spread of the fire. The CRC specifically notes the need to consider further evidence, particularly detailed evidence of the path and spread of the fire, before reaching any conclusions: Ex 126, CRC.300.001.0001\_R at 0013\_R).

<sup>113</sup> The ignition of the Strathewen/St Andrews fire and the destruction caused by it within minutes provides a most tragic and graphic example of the danger of a destructive, fast moving fire that ignites close to populated areas: See, in particular the evidence of Williamson: T4468:10-T4470:4; Williamson Ex 132, WIT.3004.009.0029 at 0033-0048, [15]-[99] esp [46].

<sup>114</sup> Cowan T3762:14-T3762:15.

<sup>115</sup> Counsel Assisting's submissions p 36.

<sup>116</sup> Cowan T3752:22.

<sup>117</sup> Cowan T3731:24-T3731:28.

Nevertheless, when Mr Cowan produced a more detailed ‘worst case’<sup>118</sup> predictive map at around 1700, that map did not show Kinglake or Flowerdale within the area of impact.<sup>119</sup> Mr Cowan also explained that his predictions were based on rates of spread of 3-4km/h (whereas the actual rates of spread were about five to six times higher)<sup>120</sup> and had the fire front reaching areas well back from Strathewen and Kinglake at around 2100.<sup>121</sup> Had warnings been issued based on those predictions, they would have come too late and may have indicated that residents had more time to leave than in fact they did.<sup>122</sup>

116. A hand-drawn prediction map for the Kilmore East fire was prepared by the fire behaviour analysts and was available within the iECC at approximately 1630.<sup>123</sup> By that time, there was already significant fire in Strathewen, St Andrews and Humevale.
117. Predictive work done in the iECC was also based on models which underestimated the speed of travel of the fire and on weather forecasts which predicted a later arrival of the wind change<sup>124</sup> and projected that communities would be affected much later than in fact they were. Even though the fire behaviour analyst’s predictive map took into account information received as to the location of the fire between Upper Plenty and Mt Disappointment at 1530, it still predicted that the fire front would reach St Andrews between 2000 and 2100, preceded by spotting between 1900 and 2000.<sup>125</sup> While the State contends that all predictive mapping should be provided to the ICC as a matter of priority<sup>126</sup> and that warnings should incorporate and make use of fire projections, the predictive maps produced for the Kilmore East fire on 7 February illustrate the limitations of

<sup>118</sup> Cowan T3759:1-T3759:4.

<sup>119</sup> Cowan T3757:29- T3757:31; Cowan (Annexure 3.2) Ex 115, WIT.3004.009.0024.

<sup>120</sup> Cowan T3753:28-T3754:15.

<sup>121</sup> Cowan T3758:9- T3758:11.

<sup>122</sup> Note also that awareness message the Kangaroo Ground ICC attempted to release at 1430 stated there was no current threat to communities (Lawrence (Annexure 4.1) Ex 50, WIT.3004.001.0197 at 0230), whereas the threat messages issued by the RECC at Seymour were more accurate, eg an urgent threat message timed at 1430 stated that Wandong may be directly impacted ‘imminently’.

<sup>123</sup> Sutton Ex 120, WIT.3024.001.0008 at 0021-0022, [68]. Sutton had available information other than the linescans, including situation reports, a map received from CFA, an observation from an aircraft at 1530: Sutton T4064:25-T4067. The draft threat messages that Kangaroo Ground prepared were inconsistent with the predictions of Cowan and Barca and do not support the reliance placed on them by Counsel Assisting at key findings 8.1(g) and 8.1(c).

<sup>124</sup> The report accompanying the iECC predictions put the maximum rate of spread at 5.5km/h: *Kilmore Predicted Fire Spread*, Ex 38, SUMM.035.002.0131 at 0132; *Fire Spread Prediction Report*, Ex 38, SUMM.035.002.0047 at 0048.

<sup>125</sup> Sutton T4090:28-T4092:20; Sutton T4092:21-T4092:27.

<sup>126</sup> The State does not accept key finding 8.1(f) as proposed by Counsel Assisting. The information produced in the iECC relating to the Kilmore ICC for the Kilmore East fire was made available to the Kilmore ICC through the State-wide shared drive. The Kilmore ICC was unable to access this information due to technological difficulties in the Kilmore ICC.

predictive mapping. This serves as a reminder that predictive mapping is but one tool among others upon which warnings should be based. Those within an ICC are likely to be best placed to assess whether the predictions are accurate at the time they are made, which may be some time after receipt of the latest intelligence upon which they are based.<sup>127</sup>

## **J. INCIDENT CONTROL AND MANAGEMENT**

118. The State agrees with the proposed recommendation of Counsel Assisting in relation to the responsibility of senior officers to ensure that, on the day or days leading up to a day of extreme fire danger, designated Level 3 ICCs are prepared and staffed to capability and immediate operational capacity, save as to the following comments:
- (a) First, this responsibility falls on the State Duty Officer (**SDO**) of the CFA and the Assistant Chief Fire Officer at the DSE currently, and will continue to do so.
  - (b) Further, whether there is sufficient trained personnel to ensure that IMTs are staffed with Level 3 Incident Controllers across the State is dependent upon the number, spread and severity of fires (or of areas of extreme fire danger).
119. The State also accepts that the appointment of a Level 3 Incident Controller should be based on experience and qualifications appropriate to the fire that is to be managed. Where that fire is burning will be relevant but not necessarily determinative of the decision. In this regard it is noted that Joint Standard Operating Procedure J03.01 defines the control agency for multi-agency incidents. The Standing Operating Procedure provides that the control agency is determined by relevant CFA/DSE duty officers based on: (1) projected areas of fire spread and likely area of jurisdiction; (2) relative threat to life, property, assets and the environment in both agency's area of responsibility; (3) resources committed and/or likely to be committed by both agencies; and (4) ability of each agency to effect control having regard to that agency's other fire response commitments at the time. The Standing Operating Procedure provides that the control agency shall appoint an Incident Controller (from either agency) for each multi-agency incident.

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<sup>127</sup> Which Sutton put at one hour if all relevant information were available: Sutton Ex 120, WIT.3024.001.0008 at 0014, [25]. Dr Tolhurst suggested a somewhat quicker timeframe of half an hour: Tolhurst T1102:12-T1102:16.

120. Notwithstanding that the State agrees that Counsel Assisting's proposed recommendations should be made by the Commission, the State does not accept that Mr Lawrence was incapable of carrying out his responsibilities. The evidence does not suggest that he failed in any way in his responsibilities as the standby Incident Controller or the Divisional Commander. No finding adverse to Mr Lawrence should be made, including any finding to the effect that Mr Barca should have been the Incident Controller or might or would have done a better job than Mr Lawrence.
121. In considering Counsel Assisting's proposed recommendations at paragraph 9.3, the Commission should have regard to the reasons why warnings have traditionally been issued by and signed off by the Incident Controller at the ICC in control of the fire after being prepared by the Information Unit.<sup>128</sup> This process ensures that all operational information can be included in the warning.<sup>129</sup> It also reflects the fact that an activated ICC would generally have more information about the fire to enable it to formulate messages; further, it provides for consistency in the messages being released so as to prevent confusion in the community.<sup>130</sup>
122. However, bearing in mind the qualifications to the proposed recommendation by Counsel Assisting, the State agrees that, in circumstances where a Level 3 Incident Controller or officer of equivalent ranking is satisfied that an urgent threat message is required for a particular fire and the designated Incident Controller for that fire cannot be contacted, the Incident Controller (or officer of equivalent ranking) should be authorised to release the urgent threat message.
123. The State also acknowledges that further evidence will need to be called as to the apparent failure of communications between the Kangaroo Ground standby control centre and the Kilmore ICC and as to the decision that the Kilmore ICC remain the activated ICC for the Kilmore fire.

#### **K. ROLE OF CFA CHIEF OFFICER AT iECC**

124. The State agrees with Counsel Assisting's proposed recommendation 10(a) relating to amendment of the Standard Operating Procedures for the iECC in

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<sup>128</sup> Rees Ex 3, WIT.004.001.0001 at 0021-0046, [192]-[204]; *Guidelines for the AIMS Information Unit*, Rees (Annexure 7) Ex 3, WIT.004.001.0246; Lawrence Ex 50, WIT,3004.001.197 at 0205, [37]; Lawrence T1577:6-T1577:11.

<sup>129</sup> Kretzschheim Ex 42, WIT.3004.001.0032 at 0038-0039, [26].

<sup>130</sup> Lawrence Ex 50, WIT.3004.001.0197 at 0205, [37]; Barca Ex 107, WIT.3026.001.0001 at 0011, [42].

relation to allocation of a responsibility for a warning, however the State does not agree with the proposed key finding 10(j) relating to the CFA Chief Officer.

125. At this time the Commission has not heard detailed evidence about the coordination function undertaken by the iECC or at RECCs, save for the evidence of Mr Paterson. Crucially, the Commission has not had the opportunity to hear about the role of the RECCs in ensuring the functioning of ICCs which are predominantly responsible for the provision of warning information to communities. Therefore, while the Commission has heard some evidence about the role of the iECC in relation to warnings, it is not appropriate for a finding such as that proposed in 10(j) to be made until this further evidence has been heard. Further, proposed key finding 10(j) was provided to the parties before the evidence of Mr Paterson was heard by the Commission, and cannot be supported on the current state of the evidence.
126. As the Commission has heard, the iECC is a facility for the State-wide coordination of multi-agency emergency incidents such as fire and flood and it operated as a shared facility for the fire season for the first time last summer. The iECC maintains a State overview of agencies' readiness to respond to emergencies or requests for support and co-ordinates the operational, logistical and technical support necessary to facilitate the rapid suppression of fires and the management of other incidents. The evidence before the Commission is that, notwithstanding some anticipated operational risks associated with the trial of the iECC and issues arising out of specific fires on 7 February,<sup>131</sup> the use of the iECC facility represented a significant improvement on previous arrangements.<sup>132</sup>
127. Through these mechanisms, the iECC provides a platform from which the State-wide situation can be monitored. Importantly, the iECC provides emergency management, not incident management. Thus the iECC has a coordination role and does not exercise a command function over individual incidents.<sup>133</sup>
128. The fundamental responsibility of the CFA is set out in section 20 of the *Country Fire Authority Act*, namely taking, superintending and enforcing all necessary steps for the prevention and suppression of fires and for the protection of life and property in case of fire in the country area of Victoria and the general control of all stations and of all brigades and of all groups of brigades. The Chief Officer of the

<sup>131</sup> Paterson T4245:8-T4247:13.

<sup>132</sup> Rees T2562:1-T2562:11.

<sup>133</sup> Rees Ex 3, WIT.004.001.0001 at 0023-0024, [101]-[109]. Barca also acknowledged that the further you moved away from the incident in terms of accountability the harder it is to undertake the strategic and the relevant decisions in terms of the incident: Barca T3488:20- T3488:27.

CFA has the ultimate responsibility for the suppression of fires and other incidents as prescribed by the *Country Fire Authority Act*. Many of the Chief Officer's powers are delegated to Deputy Chief Officers, Operations Officers, Operations Managers and Incident Controllers.<sup>134</sup>

129. The relevant Standing Operating Procedures (**SOP**), as applied to the iECC, provides that one of the iECC's roles is 'to monitor and advise the Chief Officer via the State Co-ordinator, of incidents occurring that have the potential to escalate to have significant effect on communities, CFA, and Government or on other agencies'.<sup>135</sup>
130. The State reiterates that the CFA Chief Officer does not have a functional role at the iECC, nor does a person acting in the role of the Chief Officer (as a delegate) have such a role. State overview roles are performed by the persons occupying the roles of State Coordinator and SDO. Both positions are continually staffed with day/night rosters during peak periods.
131. During major fire events the Chief Officer would be expected to be present at the iECC. However during longer campaign fires, the Chief Officer would not be expected to be present every day, during all shifts. Rather it is the SDOs and State Coordinators who have a responsibility to keep the Chief Officer informed.
132. The Commission has not heard evidence from persons acting as the CFA State Coordinator on 7 February. The State Coordinator is responsible for ensuring effective State-wide coordination of resources is carried out and all relevant information is reported to the Chief Officer. The State Coordinator is also required to maintain an overview of all operational information and the State situation, in order to prepare briefings, liaise with other agency representatives and authorise information for release to the media. The State Coordinator has defined responsibilities to report to the Chief Officer.<sup>136</sup>
133. As outlined by Mr Paterson, the role of the SDO under the relevant SOP is to ensure the efficient management of the iECC and to ensure that the State Coordinator is informed of all significant incidents.
134. The CFA Chief Officer can monitor the overall performance of CFA systems and can address any reported system failures, to the extent possible, when present in the iECC or when monitoring the situation through remote systems or by phone.

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<sup>134</sup> Delegations to be adduced to the Commission.

<sup>135</sup> *State Emergency Coordination Centre Standard Operating Procedures 1.01*, Ex 71, CFA.001.001.0001 at 0002.

<sup>136</sup> *State Emergency Coordination Centre Standard Operating Procedures 1.01*, Ex 71, CFA.001.001.0001 at 0005.

The Chief Officer can, on his own initiative, or at the request of the State Coordinator, make decisions about State-wide allocation of resources, and perform a role in ensuring that appropriate inter-agency high level consultation and liaison occurs. In the event of a catastrophic failure of command at the incident or regional level, it is the role of the Chief Officer to liaise with DSE, Victoria Police and other agencies to determine if command in any aspect needed to be assumed and by whom. Following events, the Chief Officer is responsible for considering the effectiveness of agency performance and making required improvements.

135. In view of the structure of the iECC and the evidence the Commission will hear about the role of the RECCs as well as the delegated operational powers of the Chief Officer, the State submits that this structure is generally sound. However, as noted above, the State will review the structure of the iECC and the RECCs in relation to the monitoring of the performance of the ICCs and their delivery of timely and accurate warnings.

#### **L. REVIEW OF THE STATE EMERGENCY RESPONSE PLAN**

136. A review of the State Emergency Response Plan (**SERP**) is currently being undertaken by Victoria Police and is based on a request from the Minister of Police and Emergency Services. Victoria Police will report on the outcome of the SERP review to the Commission as soon as it is able to.
137. However, of the items identified in Counsel Assisting's proposed recommendations, only following three are not part of the original terms of reference for the Victoria Police Review:
- examine the ways in which the emergency response on 7 February varied from the "all hazards, all agencies" emergency response management arrangements set out in the SERP;
  - consider whether these variations were due to inefficiencies or ambiguities in the emergency response management arrangements set out in the SERP; and
  - consider the establishment of a State Emergency Co-ordination Centre for the management of the emergency response to all emergencies, including the co-ordination function currently carried out by the State Emergency Response Coordination Centre.

138. The State agrees that if the proposed recommendation of Counsel Assisting is made by the Commission, the Minister will expand the terms of reference of the review of the SERP to encompass the above three points. Victoria Police, or another appropriate body, will address those additional terms of reference and report to the Commission as soon as practicable.

#### **M. CO-OPERATION WITH COMMONWEALTH**

139. The State does not oppose the proposed recommendations sought by Counsel Assisting relating to cooperation with the Commonwealth.
140. There is potential for closer co-operation with Commonwealth agencies (including Emergency Management Australia, the Defence Imagery and Geospatial Organisation and the Department of Defence) to deal more proactively with detecting, tracking and combating bushfires.

#### **N. TRIPLE ZERO**

141. The State acknowledges that, despite the best efforts of the Emergency Services Telecommunications Authority (**ESTA**) staff and Telstra operators, there was significant delay in answering calls at ESTA and that Telstra's data shows that the Telstra operators could not answer many callers.<sup>137</sup> The State acknowledges that this was distressing, frustrating and deeply traumatic for many callers.
142. In assessing the capacity of ESTA to handle emergency calls, it is important to keep in mind that ESTA has legislative responsibility for managing triple zero emergency calls, non triple zero emergency calls, non-emergency calls and associated communications for the dispatch of Victoria Police, Ambulance Victoria, CFA, MFB, and VicSES.<sup>138</sup>
143. On 7 February 2009, the unprecedented call activity resulted in a high number of presentations by Telstra triple zero operators and lengthy delays before calls

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<sup>137</sup> The State disputes the evidence of Elkington Ex 117, WIT.5003.001.0001 at 0004, [7] that the 12 calls that lasted more than 20 minutes were Telstra operators waiting on the line with a caller for an available ESTA operator. An analysis of JLE 24 demonstrates that of those 12 calls, 11 of them were instances of the Telstra operator waiting on the line to pass on the CLI data which should have been passed on via the alternate method for passing on CLI data of disconnected callers in busy periods. See entries in JLE 24 at 13:43:09; 15:45:15; 15:51:53; 16:19:38; 16:22:08; 16:23:10; 17:14:00; 17:15:40; 18:18:46; 18:55:37; 19:36:27. The times listed are the times in the column 'Time call answered by ESAP'.

<sup>138</sup> Foster Ex 12, WIT.012.001.0001 at 0004, [14]. The State does not accept key finding 13.1(w) which suggests that VicSES has a separate call taking centre to ESTA.

could be answered by ESTA call takers.<sup>139</sup> The level of fire call activity for 7 February was about 92% above the next busiest day. The next busiest day for ESTA was 22 January 2006. On 22 January 2006 there were 2,185 calls to fire services and on 7 February there were 4202 calls.<sup>140</sup>

144. On 7 February 2009, ESTA received 6,974 and answered 6,905 triple zero calls from Telstra.<sup>141</sup> ESTA answered 4,153 (60.1%) of these calls answered within 5 seconds and 5,116 calls (74.1%) of these calls within 1 minute of their presentation to ESTA.
145. Where calls are described as abandoned in Ms Elkington's statement and Counsel Assisting's submissions, there is no evidence to suggest that calls were intentionally abandoned, and these calls could have disconnected for any number of reasons.
146. The State accepts that there should be a recommendation as to increased staff numbers and increased workstations. The State does not accept that there should be any related recommendations about funding because additional funding has already been provided to ESTA in the 2009/10 budget.
147. An additional \$3 million has been made available, in addition to a 3% (CPI) related increase in revenue for base Computer Aided Dispatch (**CAD**) services in 2009/10. ESTA will receive \$46.6 million for core CAD fees from consolidated revenue in 2009-2010 up from \$42.5 million in 2008/09.<sup>142</sup> These core CAD fees exclude funding provided by the CFA for ESTA's operations at Ballarat as these are not funded by the State and are separately funded by ESTA (from its reserves) and the CFA. ESTA will use the additional funds to partly fund the proposed recommendation as to staffing and capacity. In addition, the State has funded the commissioning of call-taking capacity for an additional 15 work stations at ESTA's Ballarat call centre. Off duty staff will be recalled to duty on high demand days to staff these additional work stations to assist ESTA to deal with anticipated surges in emergency calls
148. Options in addition to increasing staff are being pursued by the State to address the delays experienced on 7 February 2009, such as training more staff to be 'multi-skilled'. For example, there would be an effective increase in numbers of staff available to take calls for fire, if police call takers at the Ballarat Centre could

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<sup>139</sup> Kiernan Ex 12, WIT.3000.001.0001 at 0006, [144].

<sup>140</sup> Chart H and Chart N, Kiernan (Attachment OMK-19) Ex 63, WIT.3000.001.0138 at 0145 and 0151; Foster T1977:26-T1978:2; at Kiernan T1994:20-T1996:2.

<sup>141</sup> Kiernan Ex 12, WIT.3000.001.0001 at 0022, [134]-[135].

<sup>142</sup> Foster T1957:17-T1957:27.

handle fire related calls on busy days. To this end ESTA has already commenced the cross-training of existing police staff at Ballarat.

149. The State also considers that long term goals and business models must be implemented, such as:
- (a) A revision of ESTA's infrastructure, staffing arrangements and operating procedures so as to allow its call takers to answer calls for multiple Emergency Services Organisations regardless of which State Emergency Communications Centre they were located in.
  - (b) Splitting ESTA's current call taking interface with the public from a single triple zero point of contact into an emergency and non-emergency call taking interface via two different telephone numbers (for example, triple zero and 333), allowing ESTA to initially prioritise calls prior to their being answered by an ESTA call taker.
150. The State submits that any recommendation about staffing should not extend to ensuring a pool of reserve staff so as to meet demand on ESTA during extreme events. There is no evidence before the Commission to suggest that this is a workable option, and the State accepts that further staffing at ESTA is appropriate. The evidence before the Commission is to the effect that ESTA is a specialised communication centre and its staff need training, certification and operational experience. ESTA's calls are not amenable to being overflowed to a general call taking centre.<sup>143</sup>
151. The State agrees with Counsel Assisting's proposed recommendation that there be liaison between ESTA and the Victorian Bushfire Information Line (**VBIL**).
152. The State submits that no recommendations should be made by the Commission about reviews and audits. ESTA is obliged to meet performance benchmarks and must provide regular reports to the OESC in respect of performance at all its centres. There is no evidence to suggest that Mr Esplin does not have the experience or statutory authority to require ESTA to report more fully. He has the authority to obtain such information as he requires from ESTA and to report as he considers necessary and appropriate. OESC reviewed ESTA's performance measurement methodologies in 2008 and the recommendations of that review have been endorsed by the Minister for Police and Emergency Services. OESC is

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<sup>143</sup> At Foster T1949:21-T1949:26 Foster stated that ESTA's communication centres are of a particularly sophisticated type; Foster T1961:19-T1961:29 gave evidence as to the need for ESTA staff to maintain their skills on an ongoing basis. Also see Foster Ex 62, WIT.012.001.0001 at 0009 [53]-[59].

working on a project with ESTA to implement those recommendations. This project will enhance reporting and ensure that performance measures are applied consistently across all ESTA centres.

153. While the State submits that the training of ESTA staff about regional areas is sound, if an interim recommendation on this subject is made by the Commission, the State will review and examine it. If a recommendation is made, the State submits that it should be structured so as to recognise the particular duties performed by ESTA staff. ESTA provides a call taking and dispatch role using the DSE VICMAP service and recommendations provided by the CAD system and otherwise defers to the Fire Services Communications Controller.<sup>144</sup>

#### **O. VICTORIAN BUSHFIRE INFORMATION LINE**

154. On 7 February 2009 the VBIL experienced unprecedented call volumes. Overflow arrangements to Centrelink were delayed due to technical issues experienced by Centrelink. The result was that a large number of calls to the VBIL were not answered and significant delays were experienced in answering calls.<sup>145</sup> Delays were also experienced in the receipt of information from ICCs and the iECC and the consequent provision of information (through Frequently Asked Questions (**FAQs**)) which addresses particular fires to call takers.
155. The single website project will improve the speed and currency of information available to the VBIL for the coming season.
156. Improved performance by the VBIL has the potential to ease some of the demand pressures from the triple zero service on extreme fire days by providing an alternative source for dealing with non-emergency calls.
157. The State agrees that greater numbers of staff should be rostered on to answer calls during extreme events and that all endeavours should be used to produce the FAQs and disseminate them to the VBIL and Centrelink call takers as quickly as possible. The State submits that any recommendation should focus on the staffing and the currency of information coming to the VBIL rather than protocols for the VBIL staff.<sup>146</sup>
158. The State agrees in principle with the proposed recommendations by Counsel Assisting in relation to the VBIL, with the exception of proposed recommendation

<sup>144</sup> Kiernan Ex 63, WIT.3000.001.0001 at 0011 and 0013, [54] and [68].

<sup>145</sup> Venters Ex 137, WIT.3024.002.0001 at 0017, [120].

<sup>146</sup> Procedures to ensure that the CFA and DSE disseminate current information is addressed above.

14(f) 'that there be a cessation of the practice of overflow calls going to Centrelink.' The State is working with Centrelink to improve the overflow arrangements. The VBIL are greatly assisted by Centrelink and would find it difficult to operate without the surge capacity offered by Centrelink during extreme fire events.

159. To improve the performance of the VBIL it is proposed to consider expanding the VBIL to an 'all hazards' Victorian Emergency Information Line and to examine the operations and procedures of the service including information technology and telephony, service level standards, and protocols around receipt of information from agencies.

## **P. COMMUNITY EDUCATION**

160. The State agrees that the 'prepare, stay and defend or leave early' policy, and the warnings issued during a fire event, require a certain level of understanding and knowledge on the part of each and every community member for those policies and warnings to be effective. Counsel Assisting recognises that people cannot make appropriate choices in regard to bushfire preparedness and response without such education.<sup>147</sup>
161. As noted above, the State agrees that the 'prepare, stay and defend or leave early' policy should be revised and that there should be much more emphasis placed on the protection of life by leaving early. Many properties, even if well prepared, may not be able to be defended, meaning the only safe decision for those residents is to leave early. In line with these key principles, the State will revise and strengthen existing information and community education around this policy.
162. The State agrees that community education and engagement must entail a multi-faceted approach, using a variety of media and forms of engagement. The central message of the 'prepare, stay and defend or leave early' policy has been widely communicated through CFA education programs and publications. The State agrees that the CFA's Community Fireguard program 'sets a very good example of best practice'<sup>148</sup> and that strategies to increase bushfire preparedness are more effective when transmitted through community networks.<sup>149</sup> To work effectively, the 'prepare, stay and defend or leave early' policy requires a sophisticated

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<sup>147</sup> Finding 15(a)

<sup>148</sup> Key Finding 15 (e).

<sup>149</sup> Key Finding 15 (c)

degree of understanding and practical application. Importantly, it requires residents and others in bushfire areas to share responsibility for their own safety through planning, preparation and decision-making if they expect to be, or are, threatened or confronted by a bushfire.

163. *Living with fire – Victoria’s Bushfire Strategy*,<sup>150</sup> the Government’s long-term vision for bushfire management, identifies the critical need to develop more resilient communities that understand and share the responsibility for managing the risk of bushfires in Victoria. Practical experience and research around community capacity building clearly demonstrate that long-term community change is achieved when people have a stronger sense of ownership in the programs that shape their lives. This ownership is brought about by providing quality information, involvement in decision making and the development of skills, resources and community networks.
164. The State accepts that evidence before the Commission, together with other research, indicates that the messages around the policy are not universally understood and that there is a risk of community members misunderstanding the action they need to take on days of high risk or in a fire related incident or emergency.
165. The State recognises the importance of informing and educating communities about fire behaviour, what it means to live in a high risk area, and what steps communities and households need to take in order to prepare for and respond to the threat of fire. In line with proposed recommendations 15(a) and 15(b) proposed by Counsel Assisting, the State will implement a sustained community education program that will help residents respond safely to the risk of fire. Amongst other measures, new programs will be developed to target segments of the population according to risk, demographics and geographic location. There will be an increase in Community Fireguard meetings and Fire Ready Victoria Community meetings.

**Q. IMPLEMENTATION OF RECOMMENDATIONS AND TOPICS FOR FUTURE CONSIDERATION**

166. The State accepts the important role of the Commission and recognises that its terms of reference are cast in wide terms.

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<sup>150</sup> Esplin (Attachment 21) Ex 11, WIT.005.001.1776.

167. The Commissioners were directed to provide an interim report so that recommendations could be made for the next bushfire season, not for the purpose of reviewing its own recommendations.
168. If there is insufficient evidence to support a recommendation, then the Commission should consider refraining from making such a recommendation at this time.
169. The State will continue to assist the Commission in providing as much information as it is able to on issues identified by the Commission and falling within its terms of reference.

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1 July 2009