

# MessageMatrix



July-August 2009

Disclaimer: The information in this publication have been made available for general personal use only and is provided without any express or implied warranty as to its accuracy or currency

## Black Saturday

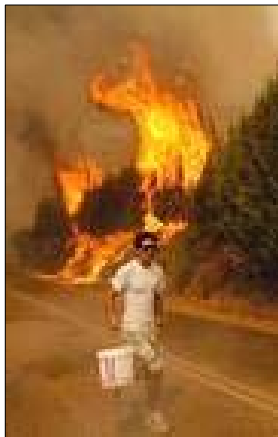
### Royal Commission

The Royal Commission's interim report was released on the 17<sup>th</sup> August. 51 recommendations were made, on issues such as information, warnings, 'prepare, stay and defend, or leave early' and incident control. This report is intended to provide immediate actions to be taken before the upcoming fire season. The document can be downloaded from the commission website.  
[www.royalcommission.vic.gov.au](http://www.royalcommission.vic.gov.au)

The Royal Commission recommenced hearings on 24<sup>th</sup> August. The final report is due in July 2010. Hearings are still being streamed live from the Commission website.

## Upcoming fire season

Predictions for the upcoming fire season are dire, with suggestions this season could be worse than last. Fingers crossed predictions are wrong!



## Victorian Fire Risk Register

Victorian authorities have identified 52 areas to concentrate bushfire protection efforts. Areas include bushland urban fringe communities, rural towns and popular summer tourist destinations.

## Not just in Victoria

Tasmania released the final draft review for construction and development in bushfire

prone areas. Key recommendations in the review are the need to clearly define bushfire prone areas and develop planning controls and construction standards applicable in these areas.

Following the release of the Royal Commission interim report, South Australia, NSW and QLD have all announced intentions to review their policies on public safety, including advice to residents, warnings and public refuges.

## And not just Australia

Whilst down south we are getting tired of the cold, the northern hemisphere has been experiencing some wildfire action.

A large bushfire to the north of Athens destroyed homes and prompted an evacuation of the northern suburbs.

In July, more than 300 people were evacuated from their homes on the outskirts of Marseille, after bushfires were started by a French Foreign Legion military exercise. Favorite media quote "Imbeciles".

Wildfires in the regions of Castilla-La Mancha and Palencia in Spain, caused the forced temporary evacuations of homes of about 2000 residents on the outskirts of Madrid.

There have also been fires in Chile, North America, Turkey, and more.

Editor's note: I am very willing to visit any of these places to gather first hand accounts, should it be required.

## Koalas

Sam the Koala, who became a media star during the 2009 fires due to a photo of her drinking from a CFA volunteer's water bottle, died from Chlamydia this month.



## Cats

Telstra has launched a mobile exchange on wheels (MEOW, really, they called it MEOW!!!) to provide mobile coverage in disaster areas.

---

## Some thoughts on building in the Flame Zone

By Jon Boura

On March 11<sup>th</sup> 2009 Victoria became the first state in Australia to adopt AS:3959-2009 Building in Bushfire Prone Areas. Other States and Territories will adopt the Standard in May 2010.

The accelerated adoption of the updated Standard, in response to the disastrous Black Saturday bushfires of 7<sup>th</sup> February 2009, raises a number of issues for land use planners and CFA in particular.

One of the most pressing issues is construction in the flame zone. The fundamental concern with the concept of building in the flame zone is that the safety of building occupants relies solely on the construction of the building. That is, a single, and hence last, line of defence.

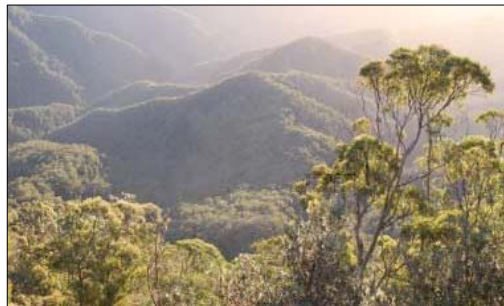
The concept of a house that is impervious to bushfire is certainly neat, and on the surface seems simple. Experience has shown, however, that effective wildfire management requires the application of a range of risk controls across planning, engineering, regulation, education and emergency management (Ed: think back to the Swiss Cheese Model in the May/June edition of MessageMatrix).

In terms of planning and development controls for wildfire safety, building construction is at

best a mid-level engineering control. Relevant higher level controls are:

- Refusing to allow construction (i.e. risk elimination);
- Siting the building in a location where the fire behaviour will naturally be lower; and
- Managing vegetation and other fuel to reduce fire intensity around the building and thus eliminating direct flame contact and reducing the level of radiant heat.

The survivability of the home is likely to also depend upon the effective implementation of lower order controls such as active defence, whether by residents or fire service. These interventions are unlikely to be safe or effective if the building is in the flame zone.



Whilst AS:3959-2009 does not in itself preclude implementation of other controls, the ability to build in the flame zone does theoretically enable development that is wholly reliant on construction level as the sole wildfire safety control.

The Standard recognises that construction in the flame zone may require reliance on measures other than construction, although what these measures are is not specified.

Once the building is situated in the flame zone in a major wildfire it is doubtful that there are other safe, effective and reliable measures available. Certainly the likelihood of successful active defence, whether by residents or fire service, would be significantly reduced.

As a single treatment, there is also uncertainty of the performance of building components in a real bushfire situation. Reservations regarding the use of AS:1530.8 Test Methods for determining the performance of building components under bushfire weather conditions of high ambient temperature, low relative humidity and strong wind, have been expressed by AFAC. The Standard itself states that the appropriateness of the test criteria for the level of risk in the flame zone is under consideration.

AS:3959-2009 states that the question of allowing building in the flame zone should be a matter of policy for the various jurisdictions. It is a mistake to assume that, just because AS:3959-2009 deals with construction levels in the flame zone, building in the flame zone should automatically become a right.

Use of AS:3959 without an appropriate land use planning control could result in development in the flame zone.

Retaining the status quo in Victoria, would be to see the construction control as complementary

to the land use planning controls, i.e. utilise WMO vegetation management conditions to eliminate flame ignition and reduce radiant heat flux (ideally to less than 29 kW m<sup>-2</sup>) and then build to requisite BAL.

There is also the opportunity to use enhanced construction levels to introduce an element of redundancy, e.g. utilise WMO vegetation management conditions to eliminate flame ignition and reduce radiant heat flux to less than 29 kW m<sup>-2</sup> and then build to BAL-40.

Construction levels above BAL-29 may, in some circumstances, be a legitimate part of a holistic development proposal but should be assessed on their individual merit. Embedding the building control within the planning control, essentially a continuation of the current approach, would provide a mechanism for managing the implementation of AS:3959-2009 and avoiding, if so desired, construction in the flame zone.

WMO- Wildfire Management Overlay  
BPA – Bushfire Prone Area  
BAL – Bushfire Attack Level

## Update on changes to the planning/building process

In August, the Building Control Commission released Practice Note 2009-42 (interim), which deals with building controls for bushfire safety.

The new Practice Note significantly changes the process for addressing bushfire risk on a new development site, although exactly how these changes play out in the application for planning and building permits is unclear.

The new Practice Note has removed the requirement for the building surveyor to ensure that the building construction is consistent with the bushfire attack level (BAL) determined through the Wildfire Management Overlay (WMO) site assessment process. Rather it requires the site to be assessed using the methodology of *AS:3959-2009 Construction of buildings in bushfire prone areas*.

Thus, the applicant must now conduct a site assessment using two different methodologies both of which provide a proposed bushfire attack level, one for the planning permit and one for the building permit.

This dual assessment may result in different BALS, for example the determination of BAL-29 through the WMO process but BAL-Flame Zone (the highest construction level) through the *AS:3959-2009* process. This discrepancy is largely due to the different ways each process assesses vegetation.

## And in the office...

### Work stuff

We have many many WMO site assessments. In fact, we have a waiting list.

Our work with Monash and Manningham City Councils has been occupying a great deal of our time. Much field work and report writing has been going on. Also much coffee drinking, but really, that is quite normal.



The rail fire prevention audit is underway, again, with the pre-season meeting held in late August and an in-season audit plan in place.

### New Work:

We are working with the CFA in the development of their new online self-assessment tool for people living in bushfire prone areas. Also with the CFA, we are running the next round of Wildfire Management Overlay courses (for practitioners).

We are about to undertake a risk assessment of Barwon Water assets and SPAusnet transmission lines.

### New Skills

All five terras have been trained in the gentle art of GPS handling and basic GIS. We enjoyed two days at Currawong Bush Park in Doncaster East (thanks Manningham!) with Scott from Ultimate Positioning. He was very very patient. Even Duncan learnt some new skills. If only the technology would cooperate.



**As a priority, we try to coordinate with our equipment**

Amalie has completed modules 1 and 2 of the Certificate in Public Participation and has come away feeling very inspired about the potentials of well planned, genuine public participation in increasing community safety outcomes.

### Terraski

The whole gang and families enjoyed a weekend of

skiing/snowboarding at Falls Creek in late August. To quote one of the terrachildren "AWESOME".

### Goodbye, so long, adieu

Sadly (for us, not for him), Duncan is taking two months leave from early September. He is off to Lander, Wyoming to do a Wilderness Emergency Medical Technician course, then to Nepal for a spot of trekking. Be sure to wave as he flies over.

### 2010

There has been much interest in the concept of a Terrababe Calendar 2010, inspired by a photo caption in the last edition. Sorry folks, no can do. Neither Duncan nor Jon are willing to sport mankinis for the greater good.

### Contacting Terramatrix

For all of you nice folk out there offering the name 'Terramatrix' to potential clients, please send them to us via the following numbers. Office: **03 5728 2370** or straight to Kayla on **0437 950 903**.

