

MessageMatrix



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Royal Commission

The focus of the Royal Commission over the past couple of months has been investigating the circumstances of the fatalities; the effectiveness of prescribed burning in reducing bushfire size and impact; roadside clearing, consideration of how powerlines contribute to ignitions and fire fighter safety. Hearings are anticipated to finish on the 26th May 2010 and the final report is expected in July 2010.

In other legal matters

The compensation hearings for the 2003 Canberra bushfires began in March. Approximately 120 plaintiffs are seeking up to \$75million in damages from the ACT government. The number of plaintiffs has been reducing rapidly from the initial 600, mostly due to insurance companies pulling out.

Fires about the place

The official bushfire danger period ended in NSW and Victoria, but has been extended in WA. There have been a number of unplanned fires in Vic, WA and SA. There have also been a large number of planned fires as land management agencies make the most of cool, calm conditions to undertake fuel reduction burns.

Bushfire Art

There are a couple of bushfire related exhibitions on at the moment,
★Black Saturday Gallery, level 11, 222 Exhibition St Melbourne, until May 26.

★Bushfire Australia exhibition at the TarraWarra Museum of Art, Healesville, Victoria until July 25 (with the added potential of a winery tour and autumnal colours).

Bushfire Arson

Symposium advancing bushfire arson prevention in Australia was held in Melbourne on March 25/26. Keynote presentations can be



found on the Australian Bushfire Prevention Initiative website (Monash University).

CFA App

The CFA launched a FireReady App for iPhones and Facebook, which can be downloaded free from iTunes or Facebook. The Apps deliver information on fire danger ratings, total fire bans and links to community safety information. Warnings, updates and advice on the location of fires are plotted on GoogleMaps.

Bushfire Bunkers

The first fire bunker to meet the Victorian regulations has been accredited by the Building Commission. Developed by Wildfire Safety Bunkers, the concrete bunker has had testing carried out in conjunction with the CFA and CSIRO. Check it out at www.wildfiresafetybunkers.com.au

Houses

CSIRO and Bushfire CRC researchers were in Mogo in mid April testing a steel framed house against the impacts of radiant heat and flame from a bushfire. For more information go to the CSIRO media releases website.

Warnings

A retired engineer in WA has come up with a Radio Activated Bushfire Warning System (RABWS) which uses satellite and then radio transmission to a home receiver to warn people of impending danger.

Books

A charity based in Kilmore called 'Books for the World' is collecting books for people in bushfire affected areas. If you would like to help please contact Caroline Lodwick at caroline@booksfortheworld.org.au

Terramatrix Wrap

There has been some ticking boxes in the past couple of months, with our work with the Department of Transport, SP Ausnet, Trust for Nature, Monash City Council and Manningham City Council coming to an end (for now). We have conducted the first course for Mornington Peninsula Council looking at WMO, AS3959-2009 and the CFA Household Self-assessment Tool. Our champion of the course was Simon Thorning, for



making his own slope calculator. That's him in the photo. Impressive!

We also have some exciting new contracts, one with Mornington Peninsula Shire Council and another with Frankston City Council, both looking at reserve fire management. Other work on the go is with Swinburne University, Barwon Water, Bushfire CRC, the CFA and a whole raft of WMOs. The introduction of the WMO in Mornington has initiated a frenzy of enquiries.

IT Nerds



Some of us more than others. We are essentially a Mac office now - very aesthetically pleasing. See photo for some gratuitous product placement.

Out of Work

Tragically I can't think of anything that we have done that is not work related. How unusual is that? We must have been very conscientious this month.

Nice photo in the banner of Duncan flying the TM flag on location in New Zealand though.

Risky Business



A good proportion of Terramatrix work is wildfire risk assessment and we need to be sure we develop a product that meets the needs of our clients and is something in which we have confidence. To do this, we adhere to the risk management (RM) process as defined by Standards Australia/Standards New Zealand Risk Management Standard AS/NZS:4360 and ISO31000.

The reasons for using a RM approach are many, but as a start:

- It requires us to explicitly articulate the context and ensures we and our client understand what we are assessing and why;
- It sets objectives that reflect the fire management outcomes relevant to the client's business;
- It provides a systematic process to follow; and
- It acknowledges that risk is dynamic, needing constant review and monitoring.

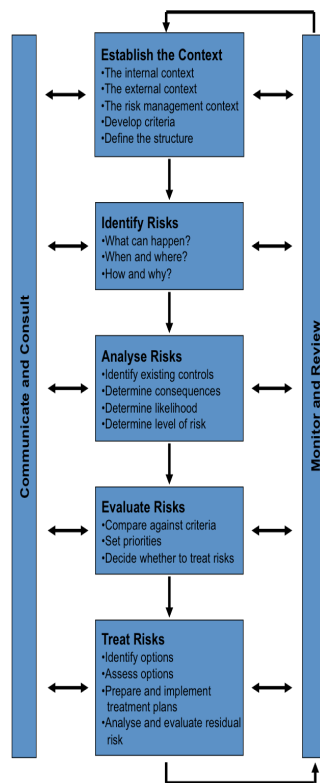
This article is a very brief look at the RM framework. There is a great deal of work on RM out there, many approaches, definitions and applications.

Risk is the chance of something happening that will have an impact on objectives and is measured in terms of likelihood and consequence. This impact can be either positive or negative. When considering hazards such as bushfire, we are usually interested in reducing the risk of negative impacts. Fire can have positive impacts also, such as weed management or broader ecological outcomes.

Assessing risk and subsequently treating it is intrinsically linked to objectives, so it is crucial that objectives are defined in the beginning to set the scope of what is being managed for. To highlight this, consider the requirements for managing risk to protect life as opposed to managing for biodiversity outcomes.

Risk management can be considered as the identification, assessment and prioritisation of risks followed by a coordinated application of resources to minimise, monitor and control the probability of negative impacts or maximise the realisation of opportunities. AS/NZS:4360 provides a

framework for the systematic application of policies, procedures and practices to the tasks of communicating, establishing the context, identifying, analysing, evaluating, treating, monitoring and reviewing risk. The elements are shown in the flow diagram.



It is important to remember that none of the steps are an end in themselves. The risk management process is a continuum, where each element is essential in effectively understanding and addressing risk.

Beginning at the top is context, **context context**. This step is often overlooked in the enthusiasm to get into the nitty gritty of risk assessment. Setting the context means defining the question and establishing why the assessment is being done. We want the assessment to be guided by the problem, not vice versa. The context, set objectives and risk criteria will inform the rest of the process and ensure we know what we are trying to assess and why.

Risk criteria are standards by which the significance of risk is assessed and may include costs, benefits, statutory requirements, socioeconomic and environmental aspects, stakeholder concerns and organisational priorities. They are the benchmarks against which you determine whether the level of risk is considered acceptable or you need to do more to manage it.

Risk assessment is the term given to the steps of risk identification, analysis and evaluation.

Risk identification is the process of determining what, where, when, why and how something could happen.

Risk analysis is a systematic process to understand the nature and level of risk.

Risk evaluation is the process of comparing the assessed risk against the established risk criteria.

There are many tools to assess bushfire risk. Choosing the right tool for the job is crucial as a tool designed for one purpose is not necessarily applicable to another. Having an understanding of what the assessment tools are designed for; the strengths and weaknesses; the assumptions, uncertainties and limitations in the design; and the conditions the tool is set to describe, is crucial.

Site level wildfire risk assessment tools are a good example. There are many different tools available that assess the risk of wildfire to dwellings including WMO, AS:3959-2009, the CFA Household Bushfire Self-Assessment Tool, the Wilson House Survival Meter and the House Ignition Likelihood Index (HILI). Each of these was designed for a specific purpose, requires different input data and includes a number of assumptions. This needs to be understood before deciding whether the tool is appropriate for the required application and determining the level of confidence we can have in the results. In some cases using multiple models can give different views of the same risk and provide a more holistic understanding. It is a mind set that says there is no one 'right' answer, but rather a wealth of risk information to help managers make decisions.

The risk assessment then guides the selection of treatments to reduce the risk. Here we can hark back to the 'Swiss Cheese Model' (May/June09 MM) where risk controls are likened to a piece of cheese, with each slice having holes representing weaknesses. No control is perfect; therefore a robust bushfire risk management system will have multiple overlapping controls.

Ongoing monitoring and review is essential to ensure the treatments remain appropriate. Risk assessment is typically a snap shot in time, whilst wildfire risk is dynamic and will be influenced by changes to hazard, exposure and vulnerability over a range of time scales as well as any contextual changes such as amendment of management objectives or change to risk appetite.