

**Clarification of expert opinion by Dr Michael Fraser Clarke
re Fuel Management Topic**

Having read the other experts' reports, the document entitled "Fuel Management Topic, Facilitated Experts' Conference, 20 February 2010, Summary of Discussion by Panel" (Exhibit 739) and the transcript of the testimony given by the expert panel on 22nd and 23rd February 2010, I wish to clarify my expert opinion on state-wide targets for prescribed burning.

I do not believe the scientific evidence justifies the application of a state-wide annual target of treating 5-10% of the "treatable" or "entire" public estate with prescribed burning (contrary to the *Context* section and point 11 of Exhibit 739).

The available scientific evidence suggests that annual prescribed burning of 5% may be justifiable in dry eucalypt foothill forest, if the primary goal is appreciable (perhaps 50%) reduction of risk to life and economic assets (e.g. property, timber, water) on days of severe fire weather. There is also some evidence to suggest that in this particular habitat the ecological consequences of this level of prescribed burning are unlikely to result in irreversible or undesirable change. Since this habitat type is also the one encompassing or abutting the majority of economic assets at most risk from unplanned fire in this state, it would appear to be the habitat type in which the greatest reductions in risk to life and property might be obtained.

However, scientific evidence of the appropriate level of prescribe burning (percentage of the landscape or habitat type) needed to achieve desirable reductions in risk, while avoiding ecological harm, is not available for most other habitats in the state. Consequently, in my opinion it is inappropriate to apply a target of 5-10% across the public estate of Victoria. Similar risk and ecological analyses to those conducted in foothills forests need to be conducted in other habitats with the goal of setting appropriately tailored targets for these habitats.

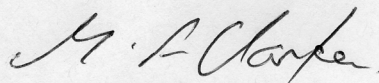
In the absence of such evidence and analyses upon which to base targets for these other habitat types, there is a need in the interim, for careful and transparent setting of local/regional objectives to justify all prescribed burning activity in those habitats. Burning conducted in Ecological Management Zones should not be used to artificially inflate "area treated" totals, if the primary goal has not been asset protection or reduction of risk of losses due to unplanned fire.

In my opinion, state-wide targets for areas burnt within *Asset Protection Zones* and *Strategic Wildfire Moderation Zones* should be determined from the "bottom-up". They should be the sum of carefully determined, evidence-based regional targets, aligned with local objectives of specified levels of risk reduction for identified assets (e.g. life, property, timber, water, infra-structure).

Similarly, state-wide targets for areas burnt within *Ecological Management Zones* should be the sum of ecologically-justified, evidence-based regional targets, aligned with local objectives of specified levels of risk reduction for identified ecological assets or the maintenance of ecologically appropriate fire regimes. A key question when considering a prescribed burn in an Ecological Management Zone is:

What ecological asset or ecosystem process will be put at unacceptable risk of irretrievable loss if this burn is, or is not, carried out?

I thank the Commissioners for allowing me to clarify my opinion.



Dr Michael F. Clarke
28th February 2010