Submission from researchers in the ARC Linkage project, *Building an Integrated System for Australian Bushfire Prevention*, due to commence 1st August 2016, for two years.

A/Prof Janet Stanley, A/Prof Alan March, Dr Paul Read¹ (Melbourne Sustainable Society Institute, University of Melbourne) and Prof James Ogloff (Swinburne University and Director, Centre for Forensic Behavioural Science)

**Contact:**
Dr Janet Stanley
Principal Research Fellow, Urban Social Resilience
Melbourne Sustainable Society Institute, Melbourne School of Design

Confidentiality is not necessary at present.

The researchers would like to comment in relation to the Environment and Planning Standing Committee’s ‘Inquiry in to Fire Season Preparedness’. The researchers have many years of experience and international standing in the fields of natural disaster planning and response, the prevention of bushfire arson, the role of the community in the prevention of arson, the role of emergency services and the social background and psychological behaviour of those who commit arson offences. The researchers work in close association with emergency services (including fire-fighting agencies and the police), the court system and state and federal governments, as well as international colleagues in this field.

Our comments relate to Terms of Reference: ‘g. the targeting of preventative measures statewide’, but in addressing this item, they are also relevant for the other terms of reference.

It is our belief that the full range of measures which could target the prevention of bushfires are not being utilized. There is far too much reliance on one measure - the use of preventative burns and land clearing, when a whole range of prevention measures need to be put in place.

On average, it is reported that about 26,000 bushfires occur annually in Victoria, a figure that is growing (Stanley and Kestin 2010). With the progress of climate change, Victoria could, on average, have a ‘Black Saturday’ level event every two or three years (The Climate Institute 2016). While there appears to be a growing number of fires started by lightning (again the incidence of lightning is increasing with climate change) it is thought that about 85 per cent of fires are started by humans, through deliberate lighting, accidental lighting or through recklessly lit fires (Australian Institute of Criminology 2009). Thus, failing to address the extensive problem of human lit fires by targeting humans, would appear to be a serious oversight.

¹ Note: Dr Read is presently at Monash University but will shortly be also joining the University of Melbourne.
Broadening and improving the preventative response could involve the actions suggested below. These actions need to be integrated into a comprehensive prevention plan with a long term approach to address the problem of bushfires and an overseeing body to ensure implementation and evaluation of outcomes. The suggested prevention actions are as follows:

**Greater involvement of the community in prevention**

The community is a large under-utilized resource. There has been talk since the Royal Commission of ‘shared responsibility’ and ‘community engagement’ but this approach has rarely been taken up (Teague et al. 2009, Council of Australian Governments 2011). There are many opportunities for preventative action here, which need to be accompanied by the community gaining decision-making capacities, resources and power sharing. Anonymous reporting of a suspicion of arson, available through Crime Stoppers Victoria, is a very powerful process. However, our research has shown that some members of the public are reluctant to report due to lack of knowledge of fire-lighting behaviours, and risks and uncertainty of the reason for the suspect’s behavior (Read 2015). Increased education of the public around the arson event, about the reporting process and addressing other identified barriers to reporting, would increase the reporting response to Crime Stoppers Victoria.

An important way of granting more responsibility and decision making to the community is through a program such as the Gippsland Arson Prevention Program (GAPP). In this place-based model, local business, local government and the community collaboratively undertake arson prevention measures. These actions particularly relate to community education and awareness-raising about arson, as well as patrolling during high fire-risk days and sharing information and resources.

**Improved services and treatment for children and youth who are displaying disturbed behaviours and the propensity to light fires, thus changing the trajectory of their behaviour**

The connection between fire-setting, family violence, alcoholism and child abuse has been known for some time (Stanley 2002). There are distinct patterns of antisocial behavior (Kolko and Kazdin 1991) and a strong predictive relationship between past and future fire-setting (Rice and Harris 1996) extending into adulthood (Putnam and Kirkpatrick 2005). Directing resources to this high risk group should assist in reducing fire lighting as well as reduce the incidence of other anti-social behaviors. *The Youth Firesetting Support Guide*, a state-wide multi-agency resource and referral system across judicial, health and education systems is a first step in this process. This world-class initiative needs resources to keep the guide activated and a large input of resources to enable the health and welfare system to meet the demand for their services.

**Treatment for offenders who light fires, including while undergoing a sentence for the offence**

The options for treatment of offenders, especially adult offenders, is almost non-existent. It is believed that many arsonists are repeat offenders, thus treatment and post release support may reduce this behaviour.

**Improving the wellbeing of Australian youth**

Australia has a large population of youth who are unemployed, under-employed and disengaged from education and employment. The most common age-group for fire setting is youth. Many of these youth live in the outer suburbs of Melbourne close to bushland where there are fewer job opportunities, very poor public transport and fewer services. This needs to be urgently addressed to
reduce the risk of such ‘forgotten’ youth engaging in troublesome behaviours, including a chance some will engage in fire lighting.

**A firmer urban boundary around Victorian urban centres, particularly Melbourne**

The problem of clusters of disadvantage being located in the fringe suburbs is exacerbated through the soft city boundaries, where settlement is penetrating into bush and high fire danger areas. Improved urban planning needs to improve opportunities in outer fringe suburbs and discourage peri-urban development as well as the establishment of a hard urban boundary, using densification to absorb extra population.

**Improved planning to manage settlement in bush and high fire risk areas**

The impact of a bushfire and the risk of arson will be reduced with stronger planning legislation to restrict new builds in high fire danger locations.

**Situational Crime prevention**

Situational crime prevention involves altering those circumstances which are more conducive to lighting fires. This includes actions such as improving lighting, protecting bushland areas behind schools, and the provision of after-school activities for children and youth who have the potential (or a record) of lighting fires. An improved understanding of the time, place and circumstances of when and where there is an increased risk of fire-lighting, would improve the outcomes from this approach.

Cornish and Clark (2003, p.90) give a useful summary of actions that can be taken in relation to situational prevention:

<table>
<thead>
<tr>
<th>Increase the effort</th>
<th>Increase the risk</th>
<th>Reduce the rewards</th>
<th>Reduce provocations</th>
<th>Remove excuses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Target Harden</td>
<td>Extend guardianship</td>
<td>Conceal target</td>
<td>Reduce frustration</td>
<td>Set rules</td>
</tr>
<tr>
<td>Control access to facilities</td>
<td>Assist natural surveillance</td>
<td>Remove targets</td>
<td>Avoid disputes</td>
<td>Post instructions</td>
</tr>
<tr>
<td>Screen exits</td>
<td>Reduce anonymity</td>
<td>Identify property</td>
<td>Reduce emotional</td>
<td>Alert conscience</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>arousal</td>
<td></td>
</tr>
<tr>
<td>Deflect offenders</td>
<td>Utilise place managers</td>
<td>Disrupt markets</td>
<td>Neutralise peer</td>
<td>Assist compliance</td>
</tr>
<tr>
<td>Control tools / weapons</td>
<td>Strengthen formal</td>
<td>Deny benefits</td>
<td>Discourage imitation</td>
<td>Control drugs and</td>
</tr>
<tr>
<td></td>
<td>surveillance</td>
<td></td>
<td></td>
<td>alcohol</td>
</tr>
</tbody>
</table>

**Improved data management and sharing between emergency, welfare and health services**

The Victorian Parliament has called for work in multi-agency data harmonisation to support emergency services, police and fire-fighting agencies. Such an approach, which is one of the tasks of the ARC Linkage grant being led by the authors, will enable improved collaboration and knowledge sharing to improve the prevention and response to bushfires. It is also hoped that this research will add value to this collaborative approach through improved profiling of areas at the greatest risk of arson.

**An improved knowledge base to enable better targeted prevention responses**
The total number of research studies on crime reporting from 1968 to 2012 resulted in only 100 papers world-wide, the main studies being in the UK (MacDonald 2002), USA (Jaehnig et al. 1981), The Netherlands (Goudriaan et al. 2006) and Finland (Kariainen and Siren 2011). Assessment and referral pathways for youth fire-setters have been developed in the UK, in the areas of health and education. Data sharing systems within fire services and to a lesser extent across country borders have been set up between some European countries. No study could be found that evaluated the value of patrolling as a preventative arson measure. Arson prevention programs in Australia tend to draw material from the United States, a vastly different ecology and culture. Thus, there is not only a need for research about arson and bushfires internationally, there is an urgent need to better understand the arsonist, the issues and the best prevention approaches, here in Australia.

The authors of this submission would welcome the opportunity to discuss these issues in greater detail with the Standing Committee, as we believe that the risk of severe and catastrophic fires is too high to not instigate a comprehensive and coordinated range of prevention measures.

References

Australian Institute of Criminology (2009) *Bushfire Arson Bulletin No. 59*, November, Canberra


The Climate Institute (2016) *Bushfire Factsheet.*