

# Incorporating Values in Bushfire Risk Decision Making: Further Development of Tools and Strategies

## Research Fact Sheet

Forests, Fire and Regions Group invests in the Integrated Forest Ecosystem Research Agreement (IFER) with the University of Melbourne (UM), to deliver critical science projects that support policy and operational practices. The core research themes of IFER include biodiversity, carbon, hazards, socio-economic, vulnerability and water. *Incorporating values in bushfire risk decision-making: further development of tools and strategies* is the IFER Socio-Economic Core project. It commenced in June 2017 and is due to be completed by August 2019.

### The Project

This project *Incorporating values in bushfire risk decision-making: further development of tools and strategies*, will consider how the values of the Victorian community can be incorporated in bushfire management, through identifying effective approaches to integrating biophysical and social science knowledge, as well as community values, into bushfire decision making.

To achieve this, the project team will work with Department of Environment Land Water and Planning (DELWP) staff on three case studies, that will:

- enable development and evaluation of tools and strategies
- support community engagement and decision-making for use in professional practice.

This work builds on earlier research, which provided:

- language for talking about values that are relevant to bushfire planning and management
- the identification of values that Victorians hold in relation to bushfire management at three levels of abstraction (see also **Figure 1**):
  - **valued entities**: tangible objects that can be mapped, similar to assets (**Image 1**)
  - **valued attributes**: the qualities of entities that help to explain why people value them
  - **core values**: the most abstract level of value, which influences both what people want to protect and how people want them to be protected.
- initial tools, strategies and ideas for incorporating values into structured planning.

### Project Outputs

This project will provide DELWP with:

- general recommendations for incorporating the values of communities in decision support tools
- insights into interdisciplinary challenges in incorporating the values of the community in decisions, and suggestions for addressing these
- an understanding of the values of members of the community who are less likely to engage with DELWP
- development of community engagement processes for understanding their values
- support to interpret and integrate social values into parts of bushfire risk planning, such as objective setting and risk analysis



**Image 1:** Examples of valued entities in relation to bushfire L: R-historic sites, natural places, homes and domestic animals  
**Photo:** Rebecca Ford

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- comparison of how values are used by different DELWP teams in response to local context, needs and expertise
- insights into the processes of practice change, limitations and opportunities for future transitions in practice.

## Policy and Operational Implications

DELWP's commitment to a suite of community-based policies, including *Safer Together*, enables research that incorporates the values of the public into forest and fire decision-making, and contributes to the overall accountability, transparency and legitimacy of decisions.

This project will improve DELWP's capacity to use community values in bushfire risk decision making by:

1. Providing new tools and enhancing staff skills in planning, designing and evaluating these tools including:
  - incorporating the diverse values of communities in setting objectives for strategic bushfire management

- assessing and monitoring bushfire risks to the diverse values of communities
- developing planning approaches that consider a full range of values and make value-based decisions transparent
- developing community engagement approaches that enable identification of social values.

2. Specifically designing the tools and strategies to systematically capture the learning of DELWP staff to enable future learning and adaptation.

This project will be particularly challenging in situations where decision-making is traditionally informed by the biophysical sciences.

## The Research Team

The project is being conducted by A. Prof Kathryn Williams, Dr Rebecca Ford and Dr Andrea Rawluk, at the University of Melbourne, in close collaboration with DELWP staff.

## Project Status (August 2018)

The final phase of the project is now underway and considers how the previously identified community

values are incorporated into various practices, tools and strategies through three case studies:

1. Contributing to, and observing, the development of an IFER Decision Support System (DSS) - a biophysical science-based tool being developed to support forest management decisions
2. Identifying the values of people who do not typically engage with DELWP and developing ways to engage with them in bushfire planning; and
3. Observing and assisting processes of planning for bushfire risk, including asset identification, risk assessment and impact analysis.

Data collection will continue until mid-2019, with the project due for completion in August 2019.

Abstract (Core Values)	Mid-level (Valued Attributes)	Concrete (Valued Entities)
<ul style="list-style-type: none"> <li>• <b>Benevolence:</b> Family and close friends have vital importance</li> <li>• <b>Universalism – human altruistic:</b> Concerns for the welfare of humans and society generally</li> <li>• <b>Universalism – biospheric:</b> The environment needs to be respected and protected</li> <li>• <b>Security:</b> One needs people, places, and things that make them feel secure in order to live</li> <li>• <b>Self-direction:</b> Independence in thought and action</li> </ul>	<ul style="list-style-type: none"> <li>• <b>Natural and experiential attributes of the landscape:</b> characteristics of the natural landscape</li> <li>• <b>Human health and relationships</b></li> <li>• <b>Going about daily life:</b> the ability to go about one's life as normal</li> <li>• <b>Animal welfare:</b> domestic and wild animals</li> <li>• <b>Livelihoods, economies, and productive capacity of the landscape</b></li> <li>• <b>Personal history and identity:</b> often related to things that evoke memories</li> </ul>	<ul style="list-style-type: none"> <li>• <b>People/homes/health facilities</b></li> <li>• <b>Infrastructure:</b> such as roads, water, power</li> <li>• <b>Domestic animals:</b> peoples' pets (dogs, horses, cats, etc), livestock</li> <li>• <b>Natural places/wildlife</b></li> <li>• <b>Heritage objects:</b> personal belongings and historic sites</li> <li>• <b>Places of work/education and welfare support</b></li> </ul>

**Figure 1:** Values of the Victorian public in relation to bushfire, listed in descending order of importance.