

VICTORIAN BUSHFIRE RISK MANAGEMENT RESEARCH: A COLLABORATION BETWEEN THE DEPARTMENT OF ENVIRONMENT, LAND, WATER AND PLANNING AND THE BUSHFIRE AND NATURAL HAZARDS CRC



bushfire&natural
HAZARDSCRC

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The increasing number and severity of bushfires impacting Victoria highlights the need for bushfire management agencies to continually consider and improve practices. As an organisation DELWP has history of initiating research and using scientific evidence to innovate an inform decision making with a risk based framework. In 2013 DELWP established a Bushfire Science Strategy to assist it in becoming more effective at learning and to guide its approach to bushfire science. As part of this strategy DELWP undertake a broad range of research projects. Some of these are managed by the BNHCRC under an service agreement overseen by a Project Control Board. Current DELWP projects managed by the BNHCRC deliver strong support for management decision making and are show cased at this conference

<p>Biological Science Projects</p>	<p>Project : Growth Stage and Habitat Analysis <i>This project will deliver a better described relationship between fire regimes, habitat, biodiversity and subsequent ecosystem resilience to support the development of models and methods to assess and select future management strategies which will inform policy and planning decision making.</i></p>
<p>Physical Science Projects</p>	<p>Project: Bushfire Climatology <i>This project is developing links between historical fire climate factors and the severity of bushfire seasons. Though this a homogeneous 41-year (1972–2012) hourly 4-km gridded climate data set has been developed for Victoria. Outputs from this project will be used to improve the scenarios used in strategic bushfire management.</i></p> <p>Project: Bushfire Spatial Data Models and Ignition Data <i>This project will integrate three historic bushfire data sets (DELWP ignition point, CFA ignition point and DELWP fire perimeter data) to deliver an improved bushfire database model design and plan. This will enable DELWP to further incorporate key data into a single database and improve ongoing assessment of bushfire likelihood.</i></p> <p>Project: Probability of Fire ignition and Escalation <i>Understanding the probability of fire ignition and escalation and being able to incorporate it into a decision making framework is a critical component of bushfire risk management. This project is developing a probabilistic framework for prediction of natural and human caused ignitions.</i></p> <p>Project: Planned Burn Mapping in Victoria using Remote Sensing <i>DELWP seek to continuously improve their ability to reliably map and report on planed burn outcomes. This project will identify future management options and technologies for planned burn mapping which capture changes in time and space including horizontal and vertical changes in vegetation structure using remote sensing technologies.</i></p> <p>Project: Smoke Emissions and Transportation Modelling <i>The development of the ability to prediction the extent of fuel consumption, as well as its distribution through transportation modelling will provide the basis of a tool for better managing smoke impacts on the community and industry.</i></p>
<p>Social Science Projects</p>	<p>Project: Smoke Impacts on Community Health and Social Perceptions <i>Understanding local perceptions and understanding of bushfire and smoke risk among vulnerable communities through community, health and environmental monitoring will improve DELWP's ability to minimise the impacts on vulnerable communities and industries.</i></p>
<p>Integrating and Evaluating Science Projects</p>	<p>Project: Assessment and Calibration of Fuel Moisture Meters <i>The project will assess the performance and operating characteristics of fuel moisture sensors deployed across the DELWP Phase II sensor network , determine the relationships between litter and sensor fuel moisture and develop guidelines for determination of location and characteristics of monitoring sites for a state-wide sensor network.</i></p> <p>Project: Science and Policy Impacts: Establishing a Monitoring, Evaluation and Reporting Framework <i>This project will develop and pilot a tool kit of evaluation options to enable DELWP to effectively and transparently evaluate, learn from and adapt the science program to meet its objective including enabling better informed management decision making.</i></p>

LEAD INSTITUTIONS *



MONASH University



THE UNIVERSITY OF
MELBOURNE

* Institutions may be leading one or more projects. Institutions and projects are not aligned in this table.

