

Tertiary Bushfire Course

Stakeholder Information and Feedback

21 May 2012

Agenda

- **Welcome** – Peter Collina, Technical Advisor Bushfire Matters, Building Commission (Project Manager for development of course)
- **Introduction** – Dennis Hogan, Director Regulatory Development and Acting Director, Industry and Regulatory Compliance, Building Commission
- **Background to the course** – Peter Collina
- **Course outline** – Dr Chris Weston, University of Melbourne
- **Stakeholder feedback**
- **Lunch and close**

Impetus for the course

- Black Saturday bushfires (7 Feb 2009)
- Adoption of AS3959-2009 (March 2009)
- Designation of bushfire prone areas (BPA's)
- Designation of bushfire management overlays (BMO's)
- Victorian Bushfires Royal Commission
- Vic Government adopted VBRC report recommendations

VBRC Recommendation #55

RECOMMENDATION 55

The State initiate the development of education and training options to improve understanding of bushfire risk management in the building and planning regimes by:

- providing regular training and guidance material to planning and building practitioners
- helping a suitable tertiary institution design and implement a course on bushfire planning and design in Victoria.

Other bushfire courses and training

- 5-day short course delivered in Victoria by University of Technology Sydney (since Oct 2010)
- Bushfire subjects in Building Designers' courses
- BAL training sessions conducted by Building Commission
- BMO training sessions conducted by DPCD and CFA
- Practice Notes and Guidelines

Tertiary bushfire course

- Steering Committee formed to oversee process
- Representatives from BC, DPCD, CFA, DEECD & FPAA
- Project aim:
 - To develop and deliver a tertiary course in bushfire planning and design for Victoria as recommended by the Victorian Bushfire Royal Commission (VBRC) and that meets the requirements of the Building Commission (BC), the Country Fire Authority (CFA) and the Department of Planning and Community Development (DPCD) in improving community safety in bushfire prone areas.

Project aim

To develop and deliver a tertiary course in bushfire planning and design for Victoria as recommended by the Victorian Bushfire Royal Commission (VBRC) and that meets the requirements of the Building Commission (BC), the Country Fire Authority (CFA) and the Department of Planning and Community Development (DPCD) in improving community safety in bushfire prone areas.

Course aims

The course shall provide graduates with the necessary knowledge and skills to undertake designs and prepare alternative solutions in bushfire prone areas and inform consideration of approval authorities of such alternative solutions. It is envisaged that the course will cover amongst other things bushfire building design and construction, planning considerations, fuel assessment and management, bushfire behaviour and fire fighting techniques.

Course aims (*Cont'd*)

It is expected that the course would be aimed at planning, building, engineering, architecture, environmental and other people who have a role in either the design or regulation of development in a bushfire environment.

It is envisaged that the course/s will be provided as post graduate and part-time in order to cater for professionals currently practising in the abovementioned fields.

Educational institution selection process

- Invitation for registrations of interest advertised nationally Oct 2011
- 7 ROI's received
- Steering Committee assessed proposals
- SC received presentations from 3 short listed
- University of Melbourne was selected in Dec 2011
- SC has been working with Uni Melb to develop course
- Course to commence early 2013

Bushfire Course Outline

Key elements of the new bushfire course:

- Builds on existing course (established in 2010 after 2009 fires)
 - Post-graduate Certificate in Bushfire Management
 - Post-graduate Diploma in Bushfire Management
- Aim is to offer the course over the long term (decades)
- Taught by national experts (University & CSIRO researchers)

Bushfire Course Teaching Team

- A/Professor Kevin Tolhurst
 - Fire ecology and management, fire behaviour prediction, bushfire risk modeling (University of Melbourne)
- Dr Alan March
 - Urban design and planning, Melbourne Sustainable Society Institute, planning to reduce disaster impacts (University of Melbourne)
- Mr Justin Leonard
 - Bushfire structure vulnerability and loss research, engineering, post-fire analysis (CSIRO)
- Dr Chris Weston
 - Course coordinator, fire ecology and carbon emissions management (University of Melbourne)

Bushfire Course: teaching

- Intensive teaching
 - most subjects taught over 10 days in two weeks
 - supplemented by private assignments
 - use both Creswick and Parkville campuses



Bushfire course: entry requirements

- Undergraduate degree
 - e.g. Science, Architecture, Engineering, Surveying



Bushfire Planning and Management Courses, May 18, 2012

Postgraduate Certificate in Bushfire Planning and Management and Postgraduate Diploma in Bushfire Planning and Management

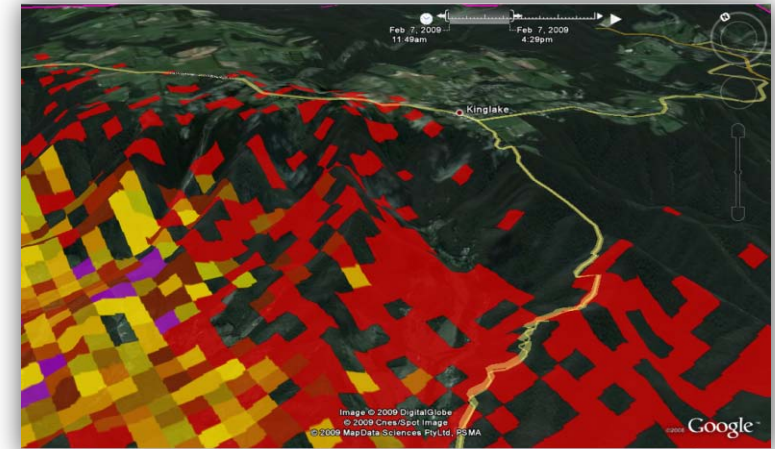
Subject Number	Core or Elective	Proposed Subject Name	Subject Weighting	New or Existing Subject	Faculty
1	Certificate Core	Bushfire and Climate	12.5	Existing Subject	MSLE
2	Certificate Core	Bushfire Planning and Management	12.5	Existing Subject	MSLE
3	Certificate Core	Bushfire Urban Planning	12.5	New Subject	ABP
4	Certificate Core	Building Behaviour in Bushfires	12.5	New Subject	ABP
5	Diploma Core	Bushfire Interface Science	12.5	New Subject	ABP/MSLE
6	Diploma Core	Bushfire Interface Design Workshop	25	New Subject	MSLE/ABP
7	Diploma Elective	Elective	12.5	Existing Subject	All UM Faculties

MSLE = Melbourne School of Land and Environment; ABP = Architecture, Building and Planning

Bushfire and Climate

(Coordinator: Kevin Tolhurst)

- Fire behaviour – intensity, radiation, convection
- Fuel, weather, topography, scale
- Drought
- Energy sources, sinks and transfer
- Weather patterns (fire climatology)
- Fire behaviour prediction / models



Bushfire and Land Management

(Coordinator: Kevin Tolhurst)

- Legislation, codes, regulations (context)
- Community engagement
- Assessing values
- Objective setting
- Strategy setting
- Options analysis
- Risk assessment
- Monitoring and review



Bushfire Urban Design

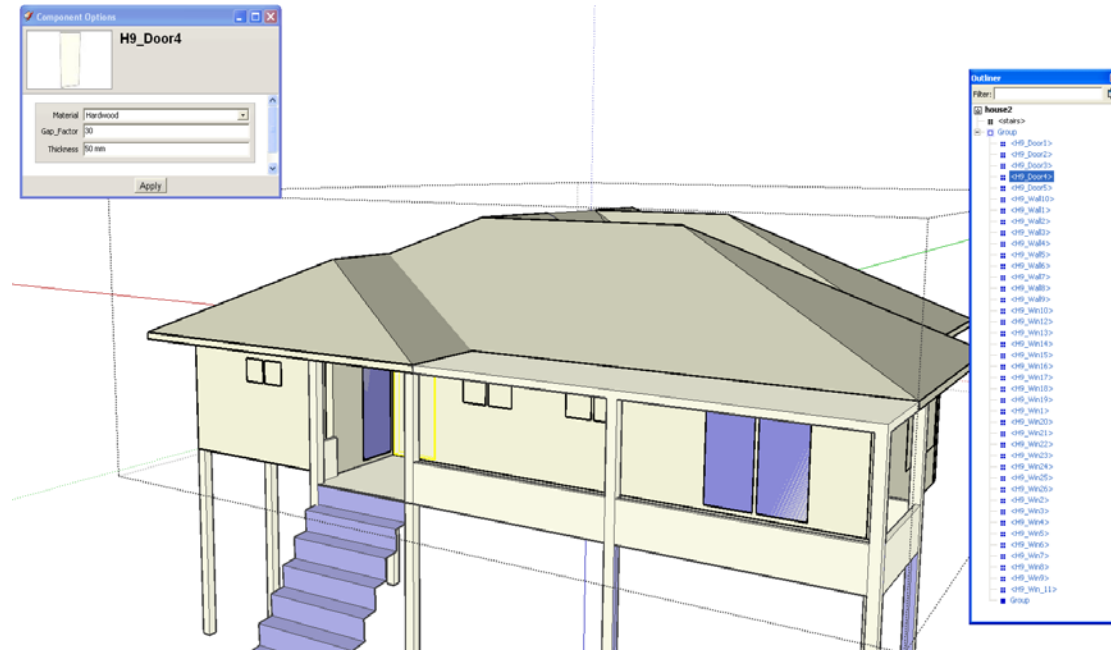
(Coordinators: Alan March and Justin Leonard)

- Risk = Hazard and Vulnerability
- Role of regulation in risk management
 - Planning regulation
 - Planning overlays (BMO)
 - Green fields master planning
 - Building regulations
 - Site assessment
 - DTS provisions
 - Performance based solutions
 - Building assessment
 - Maintenance
 - Integration



(Coordinators: Justin Leonard and Alan March)

- Bushfire from a structures perspective
- Mechanism of interaction
- Risk vs Compliance
- Building Legislation
- AS3959
- BAL from a building perspective
- Performance based solutions
- Duty of care



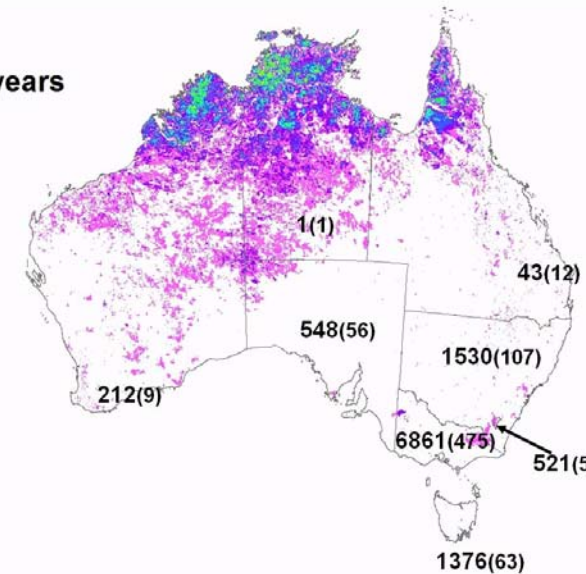
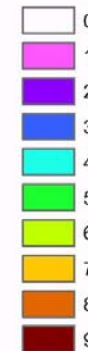
Bushfire Interface Science

(Coordinators: Alan March and Justin Leonard)

- Quantifying Fire Weather
- Advanced Fire Behavior
- Fire transitions at the interface
- Historic house loss
- Performance/Risk based design
- Risk mapping
- Vulnerability mapping



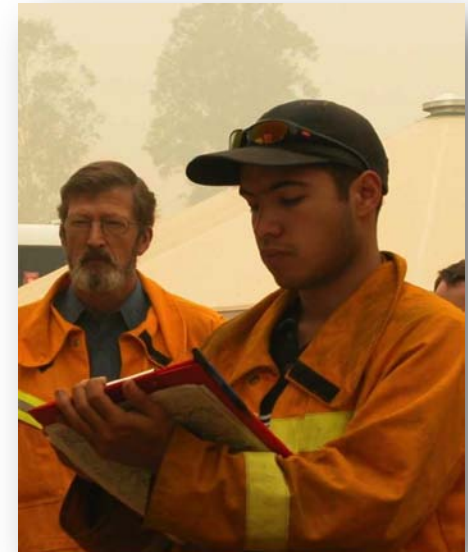
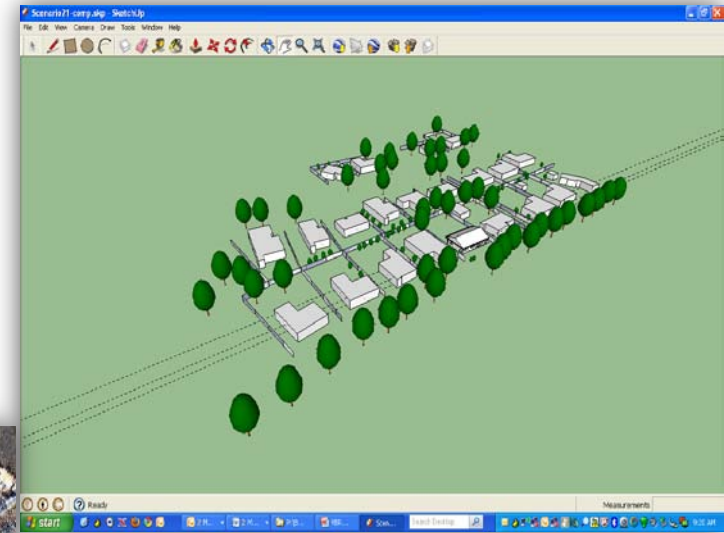
Times burned in 9 years



Bushfire Interface Design Workshop

(Coordinators: Kevin Tolhurst and Alan March)

- Industry-based learning
- Real-world application



Questions and Feedback

