THE ROLE OF BUSHFIRE CONSULTANTS IN PLANNING FOR BUSHFIRE PROTECTION

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PROFESSIONAL BUSHFIRE CONSULTANTS

81 BPAD and many *noncertified* consultants recognised by the Rural Fire Service (RFS)

On average, 20 new BPAD consultants are accredited by the FPAA every year.



BUSHFIRE CONSULTANT QUALIFICATIONS

- Professional practitioners who possess skills to research, develop, describe and provide safe bushfire design
- Relevant professional background and a foundation of a previous university degree such as environmental science, building surveying, town planning, architecture, or ecology.
- Extended their knowledge base into the bushfire protection planning sector through combination of post graduate qualifications (WSU) and practical application
- Represent a vibrant community of highly networked professionals, who play a dynamic role between the building industry and the consent authority.
- Evolved over a decade due to the high diligence of the RFS, ensuring that delivery of the Planning for Bushfire Protection Policy document is set, maintained and enforced to a high consistent standard.





WHAT DOES A BUSHFIRE CONSULTANT DO?

Provide advice and assessments for planning consent for developments located on Bushfire Prone Land.

Determining the type of development and the landscape in which it is proposed.

Identification of Bushfire Attack Level (BAL). BALs are the measuring tool used to measure the severity of a building's potential exposure to ember attack, radiant heat and direct flame contact

Design the compliance for APZ, access, landscaping, water supply, building design and construction and emergency management arrangements



IS PLANNING FOR BUSHFIRE PROTECTION WORTHWHILE?

History of Planning for Bushfire Protection in Australia

Loop between research of fire behaviour and study of the impact of fire

- Every bushfire since 1945 has fed into this knowledge base:
- 1945- Beaumaris fires
- 1968- Blue Mountains
- 1994- Jannali Como
- 2001 Sydney
- 2003 Canberra
- 2009 Black Saturday
- 2018- Tathra

BUSHFIRE PROTECTION STANDARDS





NASH STANDARD STEEL FRAMED CONSTRUCTION IN BUSHFIRE AREAS





AS 39592018 white and a second secon

https://infostore.saiglobal.com



CROSS SECTIONAL IMPACT ASSESSMENT SURVEY OF Conjola park

- Half of the 245 dwellings destroyed/damage;
- One quarter additional gardens and outbuildings damaged
- 38 dwellings had some form of council approved bushfire protection





me. 2019 BALS Downslop Subject Site Forest _____ Down Remnant Vegetation BAL Flame Zone BAL 40 APZ 18 BAL 29 APZ BAL 19 APZ BAL 12.5 APZ BAL LOW APZ

P B P

Impacted Properties and BALs according to PBP 2019

	Flame Zone	40	29	19	12.5	BAL Low
Des troyed	39	7	12	13	24	4
Damaged	6	4	4	3	6	4
Class 10 and Gardens only	4	2	1	3	4	1
Class 10 only	2			1	3	2
Gardens only	2	6	4	7	26	10
Undamaged	5	1	5	8	26	3

TRIGGER FOR BUSHFIRE PROTECTION

31 percent of destroyed or severely damaged dwellings not on bushfire prone land;

Comparison of Damage on Land Mapped and Not Mapped Bushfire Prone

	Mapped Bushfire Prone	Not Mapped Bus hfire Prone
Dwelling Des troyed	39	24
Dwelling Damaged	21	6
Class 10 and Gardens		
damaged	14	1
Class 10 only		
damaged/des troyed	4	4
Gardens destroyed	31	24
Undamaged	40	8
TOTAL WITH DAMAGE	145	59



DAMAGE OF LAND NOT MAPPED BP



Pre-fire Development Applications with Approved Bushfire Protection Construction Standards

	Des troye d	Damage d	Class 10 and Gardens	Clas s 10	Garden s	Undamage d
FZ/B						
AL 40	0	1 (Minor)	0	0	1	0
BAL						
40		0	0	0	0	1
BAL						
29	5	1		1	1	0
BAL						
19	1		0	0		0
BAL						
12.5	12	2	2	0	1	5
BAL						
Low	0	0	0	0	0	1

FLAME ZONE DWELLINGS



SHUTTERS



Fire Shutters on windows and doors and overhanging tree Exposed subfloor

Timber on BAL 40 elevation

FLAME ZONE/ BAL 40 DWELLING



Figure 1: Photographic evidence of Flame Zone Constructed House showing very light damage

EMBER ATTACK AND PROXIMITY OF DWELLINGS



No ember protection – gaps, subfloor exposure



EMBER PROTECTION EXAMPLES





APZ MANAGEMENT

- Gas Bottles- vent facing building
- Combustible items close to the housewoodheaps, plastic chairs and kayaks
- Garden beds under the windows
- Flammable mulch
- Treated pine decks
- Metal fence provided protection
- Adjacent vacant lots with Grassland

BUSHFIRE PROTECTION SUITE

• NSW Rural Fire Service (2019) Planning for Bushfire Protection. A Guide for Councils, Planners, Fire Authorities, Developers. November 2019.

INTO THE FUTURE

- APZ management after DA consent responsibility is on owner.
- Small scale

alterations/modification and vegetation regrowth or factors such as drought can detract from bushfire protection in place

• Perils of change of ownership

CONCLUSION

The impact of the Currawan fire on Conjola Park show how it is impossible to anticipate the variables which can occur on the day in the face of massive catastrophic fire. Nevertheless, if the best practice mechanisms are effectively and appropriately applied, the outcome next time may be less tragic.

Why leave bushfire risk to chance?