



NSW RURAL FIRE SERVICE

A decorative graphic consisting of a series of white arrows pointing to the right, set against a red background, spanning the width of the slide.

BUILDING & DEVELOPMENT: BUSH FIRE PROTECTION IN NSW

David Boverman, 3rd May 2022

Manager, Development Planning & Policy

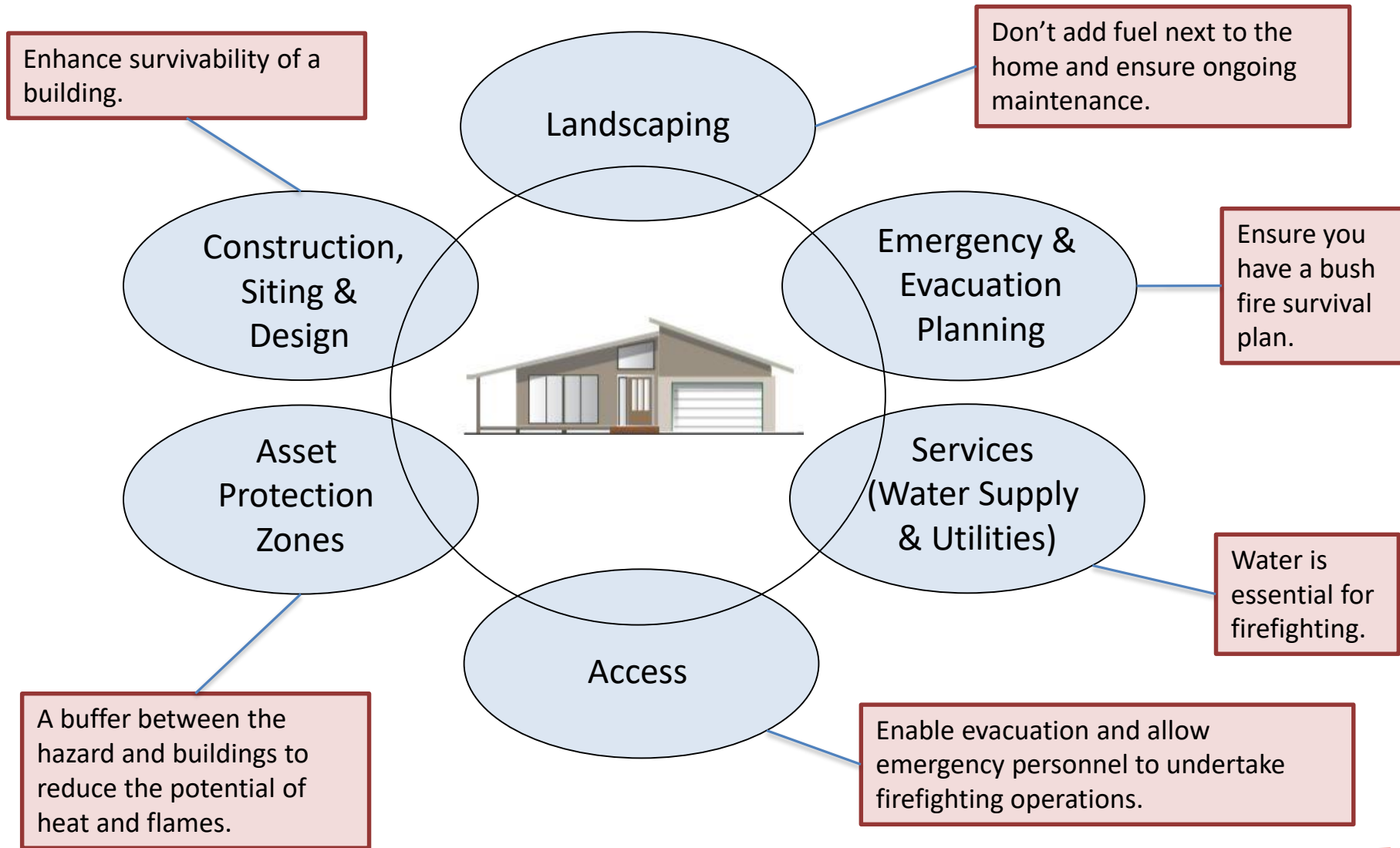
NSW Rural Fire Service

Response Recovery & Resilience Expo

Who we are

- Built & Natural Environment Directorate of NSW Rural Fire Service
- Policy & Assessments Teams
 - Development Planning & Policy
 - Planning & Environment Services
- Role of Councils in assessing to *Planning for Bush Fire Protection & issuing* development approvals/consents
- Role of Planning & Environment Services
 - Undertake review & provide advice for non-complying proposals
 - Subdivisions & Special Fire Protection Purpose Developments
- Open door policy & collaborative approach where issues involve 'policy' issues & performance-based design/compliance approaches

Bush Fire Protection Measures



BE PREPARED

Bush Fire Survival Plan

<https://www.rfs.nsw.gov.au/resources/bush-fire-survival-plan>

Bush Fire Household Assessment tool

<https://assessmyrisk.rfs.nsw.gov.au/>



Do you know your risk?

These results have been calculated to assess the risk for your location using information in our mapping system. Check and verify the information below. Consider your home's location and where the greatest risk of bush fire is. Remember that your greatest risk may not be the vegetation closest to your home. The greatest risk may be from fires spreading up a slope near your home.

What is your council area?

What type of vegetation poses the greatest risk to your house?

From the location of your house, where is the vegetation?
 Downslope Flat Upslope

How steep is the land between your house and the vegetation?
 10 degrees

What is the distance between your house and the vegetation?
 30 meters



STEP 1 DISCUSS WHAT TO DO IF A BUSH FIRE THREATENS YOUR HOME

Many households find that having a discussion over dinner works best as everybody is together and focussed.

[Download the Step 1 discussion guide \(PDF, 985.3 KB\).](#)



STEP 2 PREPARE YOUR HOME AND GET IT READY FOR BUSH FIRE SEASON

There are simple things you can do around your home to prepare it for a bush fire, like keeping the grass low and having a cleared area around your home.

[Download the Step 2 checklist \(PDF, 595.5 KB\).](#)



STEP 3 KNOW THE BUSH FIRE ALERT LEVELS

If there is a fire in your area you will find its alert level on the NSW RFS website and in the 'Fires Near Me' app. You need to keep track of the alert level so you know what you should do.

[Download Step 3 \(PDF, 166.1 KB\).](#)



STEP 4 KEEP ALL THE BUSH FIRE INFORMATION NUMBERS, WEBSITES AND THE SMARTPHONE APP

In a bush fire, it's important that you stay up to date on conditions in your area.

[Download Step 4 \(PDF, 219.1 KB\).](#)

BE INFORMED

Check if you are in bush fire prone land

<https://www.rfs.nsw.gov.au/plan-and-prepare/building-in-a-bush-fire-area/planning-for-bush-fire-protection/bush-fire-prone-land/check-bfpl>

ePlanning Spatial Viewer

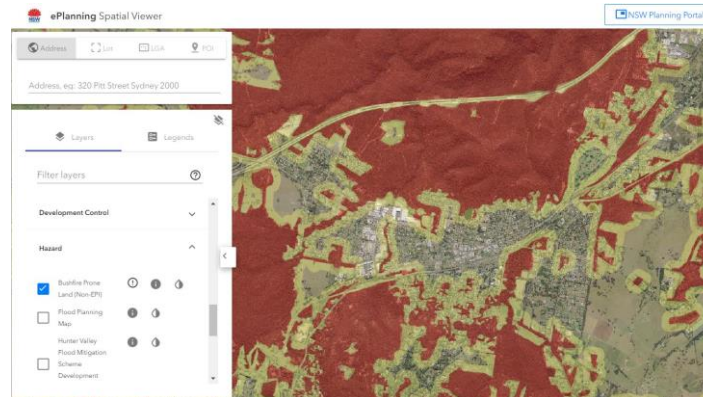
<https://www.planningportal.nsw.gov.au/spatialviewer/#/find-a-property/address>

Planning for Bush Fire Protection 2019

<https://www.rfs.nsw.gov.au/plan-and-prepare/building-in-a-bush-fire-area/planning-for-bush-fire-protection>

Single Dwelling Application Kit

https://www.rfs.nsw.gov.au/__data/assets/pdf_file/0017/4355/Guidelines-for-Single-Dwelling-Development-Applications.pdf

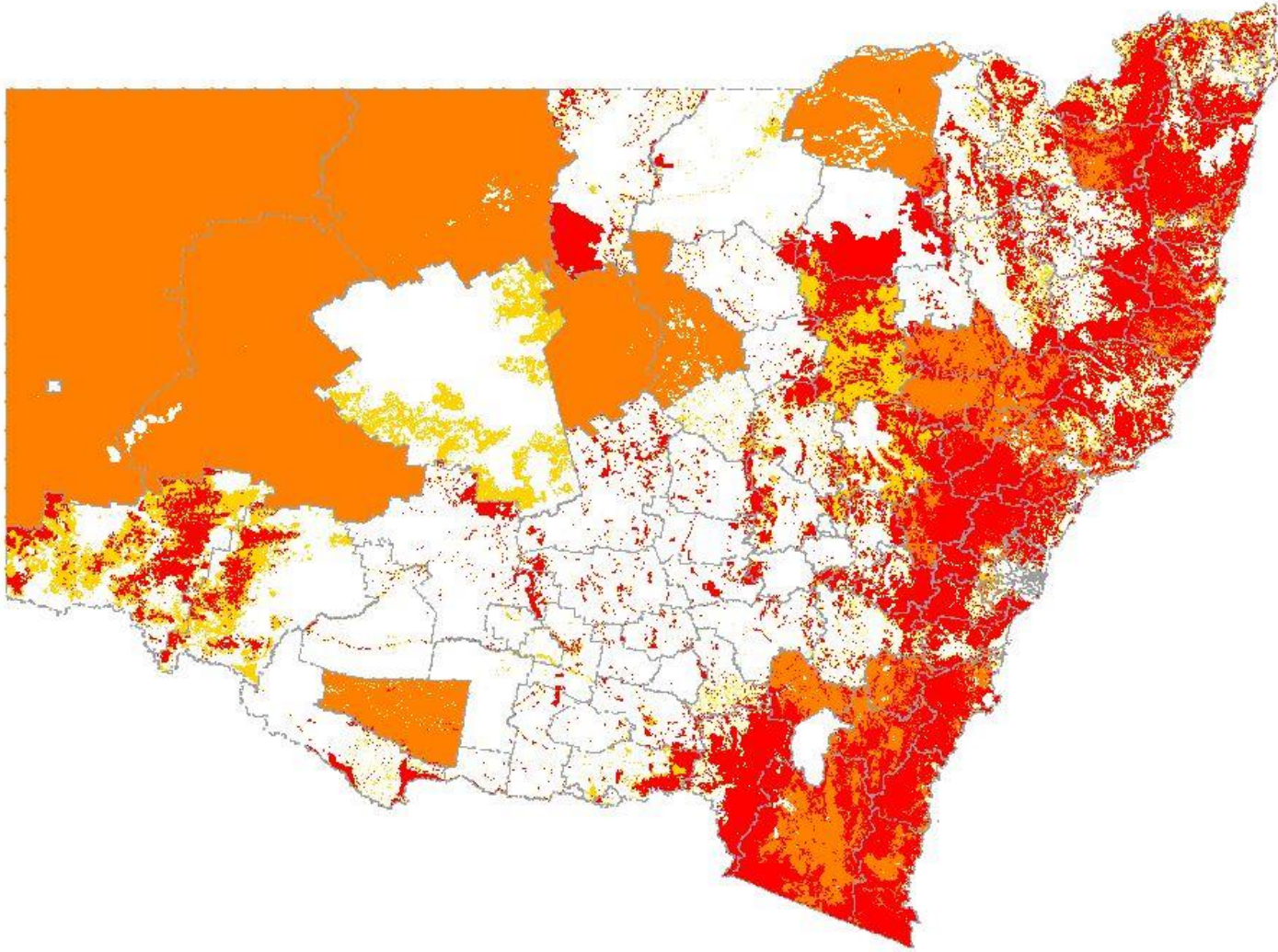


NSW Rural Fire Service **DO NOT** provide or prepare BAL ratings

Bush Fire Attack Levels & Asset Protection Zones

Bush Fire Attack Level (BAL)	Description
BAL-LOW	Minimal attack from radiant heat and flame due to the distance of the building from the vegetation, though some attack by burning debris is possible. Insufficient threat to warrant specific construction requirements.
BAL-12.5	Attack by burning debris is significant with radiant heat. Radiant heat is unlikely to threaten building elements. Specific requirements for ember protection and accumulation of debris is warranted.
BAL-19	Attack by burning debris is significant threatening some building elements (such as screened glass). Specific construction requirements for embers and radiant heat are warranted.
BAL-29	Attack by burning debris is significant and radiant heat threatens building integrity. Specific construction requirements for ember and higher levels of radiant heat are warranted. Some flame contact is possible.
BAL-40	Radiant heat and potential flame contact could threaten building integrity.
BAL-FZ	Significant radiant heat and significantly higher likelihood of flame contact from the fire front will threaten building integrity and result in significant risk to residents.

Where development control starts: Bush Fire Prone Land



The process

- Are you on Bush Fire Prone Land?
- Consider *Planning for Bush Fire Protection & Single Dwelling Kit*
- Obtain services of Bush Fire Consultant
 - Design/compliance advice - historically BAL assessments
 - Gain more control over associated approvals and consents
 - Can 'certify' compliance with *Planning for Bush Fire Protection* when Councils accept Compliance Certificates issued by BPAD Accredited Bush Fire Consultants - Fire Protection Association Australia (FPAA)
- Submit development application for approval & consent
- Construction certificate & occupation certificate - Principle Certifying Authority (Council or Private)

Avoiding approvals 'pot-holes'

- Bush fire protection compliance issues often 'bog-down' the development application & consent process
 - Prolongs time required to get approval & consents
 - Adds associated uncertainty & stress
- Substantial cost savings, design flexibility & innovation, & increased development feasibility/potential through fire safety engineering & innovative site assessment approaches
- Many sites rendered un-developable if 'standard' prescriptive approaches are adopted for building & development
- BAL-FZ is biggest hit for dwellings
- BAL-40 to BAL-FZ for a typical dwelling is a minimum approximately \$100,000 to \$150,000 (window protection & roofing largest expense)

Context & nature of performance-based approaches

- Performance-based submissions required for each non-prescriptive compliance/approvals approach & situations requiring 'judgement'
- Comparative - dwellings aren't 'bunkers' by NCC/relevant standards
- Bush fire space - few variations on the theme so most performance-based approaches not unique to each situation
- Repeatable performance-based design brief approaches
- Simple, straightforward, and generic solutions & assessments mostly

Role of Bush Fire Consultants in consulting, design, & compliance

- Preliminary, DA, construction and approvals advice
- Relationships
- Public/professionals go to Bush Fire Consultants and/or Councils first
- Councils may refer public to Bush Fire Consultants
- NSW Rural Fire Service (NSW RFS) does not provide this service
- Select Bush Fire Consultants /firms provide holistic 'wo to go' Consultancy Services
- Majority seem to only offer site assessment reductions rather than savings opportunities on construction side

Fire safety engineering in NSW

- Fire safety engineers come up with cost-effective complying design alternatives to normal approaches to construction in BAL-40 and BAL-FZ
- Fire safety engineering well established in NSW/Australia
- Hasn't taken hold in bush fire space in NSW even though accepted since 1997
- Traditionally outside of bush fire protection design
- Bush Fire Consultants reduce Bushfire Attack Levels (BAL's) by site assessment methods
- Bush fire consultants are first point of contact for design & compliance most instances even when BAL is fully Flame Zone (BAL-FZ)

How can we help?

- The Built & Natural Environment Advice Request Service (BuiltAndNaturalEnvironment@rfs.nsw.gov.au) - this is how you and your Bush Fire Consultant can work together with the NSW RFS to assist in taking more control of your DA process before, during, and after consent
- DA process for bush fire need only address your BAL and the required asset protection zones, noting historically things get tangled up in DA
- Once required BAL construction, clearing (asset protection zones), water supplies, & access are established remaining issues need only be construction certificate/Principle Certifying Authority issues
- DPAP is working with Councils/Industry to address this from a Policy perspective while working individually with the public to assist in their submissions to avoid pitfalls.



THANK YOU

David Boverman, Manager Development Planning & Policy

Development.Policy@rfs.nsw.gov.au

BuiltAndNaturalEnvironment@rfs.nsw.gov.au