

BUILDING FOR BUSHFIRE

Private Bushfire Shelters



A private bushfire shelter may be an option of last resort to escape from the immediate life-threatening effects of a bushfire. It is a purpose-built structure which must be capable of saving life during extreme bushfire conditions.

Extreme caution should be taken when deciding to install and use a private bushfire shelter.

During the 2009 Victorian bushfire disaster people sheltered in a range of places described as “bushfire bunkers”. Some people survived but there were also fatalities in bushfire bunkers. As a result, there are now specific design requirements for private bushfire shelters so that these structures will perform as a safe refuge when needed.

Private bushfire shelters should never be relied upon as an alternative to leaving early or as a stand-alone bushfire safety solution. They should only be as part of an integrated approach to bushfire protection and only for use as a last resort.

REGULATORY STATUS

The *Tasmanian Building Act* and *Building Regulations* regulate building work, including the construction of private bushfire shelters. A private bushfire shelter is classified as a Class 10c building under the National Construction Code and requires building surveyor certification.

The construction and use of a private bushfire shelter may also require a planning permit under the *Land Use Planning and Approvals Act 1993*. This should be confirmed with the relevant local Council.

fire.tas.gov.au

Bushfire Risk Unit GPO Box 1526 Hobart Tasmania 7001
Phone 1800 000 699 | bfu@fire.tas.gov.au



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DESIGN AND CONSTRUCTION

Private bushfire shelters must be designed and constructed to protect occupants from radiant heat, flame contact and smoke, they must be durable enough to resist the likely bushfire exposure and must remain tenable for the expected duration of occupancy. Design considerations include (but are not limited to):

- Siting relative to fire hazards (bushland, landscaping, other buildings and structures);
- Accessibility;
- Duration of occupancy;
- Occupant characteristics;
- Floor area and air volume;
- Interior air and surface temperatures;
- Interior air toxicity, supply and ventilation;
- Construction materials;
- Structural design;
- Visual communication with external environment.

The National Construction Code (NCC) does not prescribe Deemed-to-Satisfy specifications for private bushfire shelters due to the high level of risk and uncertainty associated with their performance. This type of building can only be accepted as complying with the NCC as a Performance Solution that is designed to the specific site conditions and likely bushfire scenarios.

The Australian Building Codes Board (ABCB) *Performance Standard for Private Bushfire Shelters* provides guidance for the design of private bushfire shelters. It seeks to lower the risks of serious human injury or death associated with these types of buildings but does not guarantee safety.

MAINTENANCE

It may be many years following construction that a private bushfire shelter is required to be used. Therefore ongoing maintenance is critical to ensure the shelter functions as intended. This includes, for example:

- Hazard management areas – the separation from surrounding fire hazards that informed the initial design must be maintained;
- Smoke seals on doors and other openings must remain in-place and in good condition to prevent smoke penetration;
- Mechanical ventilation systems and water spray systems (if used) should be expected to require significant ongoing maintenance;
- Shelters should be properly equipped to support their use (e.g. lighting, radio);
- A private bushfire bunker should not be used for other purposes – for instance, a store room, wine cellar or the like – as this may render the shelter unusable in the event of an emergency;
- Households should undertake periodic trial occupations to ensure familiarity with their shelter and to ensure it is functioning as required.

IF YOU ARE CONSIDERING A PRIVATE BUSHFIRE SHELTER

1. Remember that leaving early is always the safest option, and if you live in or near a bushfire-prone area, you should have a bushfire survival plan that incorporates a decision to either *stay and defend* or *leave early*, and includes Nearby Safer Places.
2. The use of a private bushfire shelter can only be supported by TFS where it forms part of an integrated approach to bushfire safety, and must only be a last resort option.
3. TFS does not accept private bushfire shelters as an offset or substitute for compliance with other bushfire safety requirements (e.g. hazard management, property access, firefighting water supply, building construction and maintenance).
4. Private bushfire shelter design and construction must satisfy the relevant Performance Requirements of the National Construction Code and should be as far as practicable consistent with the ABCB's *Performance Standard for Private Bushfire Shelters*.



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