

## Increased costs of rebuilding after bushfires

Where a house is destroyed, the insurance cover will generally allow you to rebuild to the same size and standard of house as you had previously. This will generally involve the same building materials (if available), and the same look, as the original house. However, new standards and new building codes mean that certain materials can no longer be used, and that additional features are required. These measures will increase building costs.

### Energy efficiency

All homes are required to be built with sufficient water and energy efficiencies, under the NSW Government BASIX initiative which has been in place since 2004. Costs to comply with BASIX could include things like additional insulation, a rainwater tank, rain water re-use, energy saving showerheads, and a solar hot water system. A BASIX certificate has to be included with the Development Application submitted to Council.

### Bushfire requirements

The current standards applying to buildings on bushfire prone land will also increase building costs. Accurately calculating the cost of rebuilding your home can be extremely difficult if you live in a bush fire prone area. On our website go to: <https://maps.wollondilly.nsw.gov.au/Intramaps96Public/> and search for your property by typing in your House Address or Parcel details, then click Search. Select the Bush Fire Prone Land Map in the left hand column. Anything showing as red, orange or yellow is bushfire prone land.

Rebuild costs for properties on bushfire prone land will be affected by:

- the Australian Standard 3959 (construction of buildings in bushfire-prone areas)
- the NSW planning system under the Environmental Planning and Assessment Act and the Wollondilly Local Environment Plan
- the NCC (Building Code of Australia)

- the NSW Rural Fire Service's Guide Planning for Bush Fire Protection (PBP) NSW 2006

These requirements all refer and link to one another. For example, one way of complying with the performance requirements in the Building Code of Australia in relation to house construction, is to comply with Australian Standard 3959. More details on AS3959-2009 are provided below.

### **Australian Standard 3959-2009 and BAL ratings**

After the bushfires in 2009, the rules around construction (including rebuilding) in bushfire zones became a lot stricter. The national standard for building in fire zones is *Australian Standard 3959-2009, Construction of buildings in bushfire-prone areas*. Bushfire Attack Level (BAL) ratings, which rank the intensity level a building is likely to experience during a bushfire, are central to the building standards. The BAL rating for a building is based on a range of factors including the steepness of your block, the type of vegetation in the area, and how close the house will be to vegetation in each direction. The methodology for working out BAL ratings is in Australian Standard 3959.

The BAL rating of the site is needed to determine how, and with what materials, a new house can be built. For each BAL rating, AS-3959 sets out what is required in relation to roofs, external walls, floors, windows, verandas and carports. There are no specific bushfire-related construction requirements if your building is assessed as having a BAL-Low rating. For all other BAL ratings, the higher the BAL rating, the greater the cost will be to comply with fire protection requirements when rebuilding. Additional requirements, depending on your BAL rating, could include building with non-combustible materials, water tanks specifically dedicated for fire-fighting, metal window shutters, fire-rated door screens, and heat-resistant glass.

### **Building for resilience**

A benefit of new building standards is that if it is done well it can increase our resilience to extreme weather events such as droughts, heat, bushfire and flooding. Modern houses have deeper roof overhangs to shade walls and keep water away from the foundations. If oriented correctly, the design can take advantage of sunlight in passive solar heating. New homes

can be designed to minimise overheating and air conditioner use through insulation and high-performance windows.

Energy efficiency plays an integral role in creating homes and buildings that are resilient in the face of extreme weather events. Highly insulated buildings will do a far better job at maintaining comfortable temperatures in the event of an extended power outage. During normal operations, such buildings will emit far less carbon dioxide and consume far less energy. The benefits become more apparent when buildings exceed the minimum standards set by BASIX. These buildings can:

- save up to \$1,000 per year as a result of reduced utility consumption
- use up to 45% less electricity
- consume 22% less water
- emit up to 40% less CO<sub>2</sub> emissions and
- maintain a comfortable indoor temperature for 10% more of the time (even without air conditioning).

For further information please contact Council's Building Certification team on 4677 1100 or email [council@wollondilly.nsw.gov.au](mailto:council@wollondilly.nsw.gov.au)

### Resources

- <https://www.treasury.nsw.gov.au/sites/default/files/2019-08/GUIDELINES%20FOR%20RESILIENCE%20IN%20INFRASTRUCTURE%20PLANNING%20-%20NATURAL%20HAZARDSV2.pdf>