

Sent:	9/02/2020 3:38:51 PM
Subject:	NSW RFS Determination - Your Reference - DA2019/1378
Attachments:	DA20191230001663-Original-1 - 09-02-2020 10_22_25 - Determination Letter.pdf;



NSW RURAL FIRE SERVICE

Attention: Catriona Shirley

Your Reference: DA2019/1378

Application Details: s4.14 – Infill – Original

Site Address:

79 Kumarna Street
Duffys Forest NSW
AUS

Please find attached correspondence relating to the above development.

Should you wish to discuss this matter please contact Adam Small on 1300 NSW RFS and quote DA20191230001663-Original-1.



Planning and Environment Services

NSW RURAL FIRE SERVICE

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PREPARE. ACT. SURVIVE.



NSW RURAL FIRE SERVICE

Northern Beaches Council
PO Box 882
MONA VALE NSW 1660

Your reference: DA2019/1378
Our reference: DA20191230001663-Original-1

ATTENTION: Catriona Shirley

Date: Sunday 9 February 2020

Dear Sir/Madam,

Development Application
s4.14 - Infill - Single Dwelling - New Dwelling
79 Kumarna Street Duffys Forest NSW AUS, (none)

I refer to your correspondence dated 16/12/2019 seeking advice regarding bush fire protection for the above Development Application in accordance with section 4.14 of the *Environmental Planning and Assessment Act 1979*.

The New South Wales Rural Fire Service (NSW RFS) has considered the information submitted and provides the following recommended conditions:

Asset Protection Zones

The intent of measures is to minimise the risk of bush fire attack and provide protection for emergency services personnel, residents and others assisting fire fighting activities. To achieve this, the following conditions shall apply:

1. From the start of building works, the property around the building must be managed as follows:
 - North for a distance of 22 metres as an inner protection area (IPA) and a further 15 metres as an outer protection area (OPA);
 - East for a distance of 12 metres as an inner protection area (IPA) and a further 10 metres as an outer protection area (OPA);
 - South for a distance of 20 metres as an inner protection area (IPA),
 - West for a distance of 42 metres as an inner protection area (IPA).

The IPA must comprise of the following:

- Minimal fine fuel at ground level;
- Grass must be mowed or grazed;
- Trees and shrubs are retained as clumps or islands and do not take up more than 20% of the area;
- Trees and shrubs are located far enough from buildings so that they will not ignite the building;
- Garden beds with flammable shrubs are not located under trees or within 10 metres of any windows or doors;

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Street address

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- Minimal plant species that keep dead material or drop large quantities of ground fuel;
- Tree canopy cover not more than 15% of the area;
- Tree canopies are not located within 2 metres of the building;
- Trees are separated by 2-5 metres and do not provide a continuous canopy from the hazard to the building; and,
- Lower limbs of trees removed up to a height of 2 metres above the ground.

The OPA must comprise:

- Tree canopy cover is not more than 30% of the area; and,
- Understorey grasses and shrubs are managed on an annual basis.

Construction Standards

The intent of measures is that buildings are designed and constructed to withstand the potential impacts of bush fire attack. To achieve this, the following conditions shall apply:

2. New construction on the southern and western elevations of the proposed dwelling must comply with section 3 and section 6 (BAL 19) Australian Standard AS3959-2009 *Construction of buildings in bush fire-prone areas* or NASH Standard (1.7.14 updated) *National Standard Steel Framed Construction in Bushfire Areas – 2014* as appropriate and section A3.7 Addendum Appendix 3 of *Planning for Bush Fire Protection 2006*.

3. New construction on the entire roof, and the northern and eastern elevations of the proposed dwelling must comply with section 3 and section 7 (BAL 29) Australian Standard AS3959-2009 *Construction of buildings in bush fire-prone areas* or NASH Standard (1.7.14 updated) *National Standard Steel Framed Construction in Bushfire Areas – 2014* as appropriate and section A3.7 Addendum Appendix 3 of *Planning for Bush Fire Protection 2006*.

4. New construction of the entire proposed garage must comply with Sections 3 and 8 (BAL 40) Australian Standard AS3959-2009 *Construction of buildings in bush fire-prone areas* or NASH Standard (1.7.14 updated) *National Standard Steel Framed Construction in Bushfire Areas – 2014* as appropriate and section A3.7 Addendum Appendix 3 of *Planning for Bush Fire Protection 2006*.

Access – Property Access

The intent of measures is to minimise the risk of bush fire attack and provide protection for emergency services personnel, residents and others assisting fire fighting activities. To achieve this, the following conditions shall apply:

5. Property access roads must comply with the following:

- The road has a minimum carriageway width of 4 metres for rural-residential areas, rural landholdings or urban areas with a distance of greater than 70 metres from the nearest hydrant point to the most external part of a proposed building (or footprint). Any carriageway constriction along the road must be no less than 3.5 metres in width and for a distance of no greater than 30 metres.
- A minimum vertical clearance of 4 metres is provided to any overhanging obstruction, including tree branches.
- Curves have a minimum inner radius of 6 metres and are minimal in number to allow for rapid access and egress. The minimum distance between the inner and outer curves is 6 metres.
- Maximum grades for sealed roads do not exceed 15 degrees and not more than 10 degrees for unsealed roads. The crossfall does not exceed 10 degrees.
- Pavements and bridges are capable of carrying a load of 15 tonnes. Bridges clearly indicate load rating.
- Roads do not traverse a wetland or other land potentially subject to periodic inundation (other than a flood or storm surge).

Water and Utility Services

The intent of measures is to minimise the risk of bush fire attack and provide protection for emergency services personnel, residents and others assisting fire fighting activities. To achieve this, the following conditions shall apply:

6. The provision of water, electricity and gas must comply with the following:

- A 20,000 Litre static water supply tank must be provided for fire fighting purposes.
- The tank must be located / designed so that a connection for fire fighting purposes is located within the inner protection area (IPA) or on the non-hazard side away from the building.
- Underground tanks must be clearly marked, have an access hole of 200mm to allow fire fighting appliances to refill direct from the tank, and have a hardened ground surface for truck access within 4 metres of the access hole.
- Above-ground tanks must be manufactured of concrete or metal. Raised tanks must have their stands protected.
- Tanks on the hazard side of a building must be provided with radiant heat shielding to protect the tank from bush fire impacts and maintain safe access to the water supply for firefighters.
- A standard 65mm metal Storz outlet with a gate or ball valve must be provided to the tank. The gate or ball valve, pipes and tank penetration of any tank must be adequate for full 50mm inner diameter water flow through the Storz fitting and made of metal.
- All associated fittings to the tank must be metal.
- Pumps where provided to supply water for fire suppression activities must be a minimum 5hp or 3kW and be petrol or diesel powered. The pump must be shielded from the direct impacts of bush fire. Any hose and reel must have an internal diameter of 19mm.
- An SWS marker must be obtained from the local NSW RFS and positioned for ease of identification by fire fighting personnel and other users of the SWS. Markers must be fixed in a suitable location so as to be highly visible and be positioned adjacent to the most appropriate access for the static water supply.
- All aboveground water pipes external to the building must be metal including and up to any taps/outlets/fittings.
- Electrical transmission lines should be located underground where possible. Overhead electricity lines must have short pole spacing (i.e. 30 metres) except where crossing gullies, gorges or riparian areas. No tree may be closer to an electricity line than the distance set out in in *ISSC3 Guideline for Managing Vegetation Near Power Lines*.
- Gas must be installed and maintained as set out in the relevant Australian Standard and all pipes external to the building must be metal including and up to any taps/outlets/fittings. Polymer-sheathed flexible gas supply lines must not be used.
- Fixed gas cylinders must be kept at least 10 metres clear of flammable materials and be shielded on the hazard side. Connections must be metal. Cylinders near to a building must be have safety valves directed away from the building and be at least 2 metres from combustible materials.

Landscaping Assessment

The intent of measures is for landscaping. To achieve this, the following conditions shall apply:

7. Landscaping of the site should comply with following principles of Appendix 5 of *Planning for Bush Fire Protection 2006*:

- Suitable impervious areas are provided immediately surrounding the building such as courtyards, paths and driveways.
- Grassed areas, mowed lawns or ground cover plantings are provided in close proximity to the building.
- Planting is limited in the immediate vicinity of the building.
- Planting does not provide a continuous canopy to the building (i.e. trees or shrubs should be isolated or located in small clusters).
- Landscape species are chosen in consideration needs of the estimated size of the plant at maturity.
- Species are avoided that have rough fibrous bark, or which keep/shed bark in long strips or retain dead material in their canopies.
- Smooth bark species of tree are chosen which generally do not carry a fire up the bark into the crown.
- Planting of deciduous species is avoided which may increase fuel at surface/ ground level (i.e. leaf litter).
- Climbing species are avoided to walls and pergolas.
- Combustible materials such as woodchips/mulch and flammable fuel are stored away from the building.
- Combustible structures such as garden sheds, pergolas and materials such timber garden furniture are located way from the building.
- Low flammability vegetation species are used.

General Advice – Consent Authority to Note

- The advice regarding the segregation of the garage BAL construction requirements to the main dwelling is based on the information provided in the bush fire consultant's report. This information relates to the separation of these areas by a non-combustible rammed earth wall, including into the roof cavity of the structure. This separation of BAL requirements has previously been recommended by the NSW RFS where proposed by consultant's when the areas of the building are separated by an engineered fire-rated wall. It shall be at Council's discretion to determine if the proposed rammed earth wall meets compliance with this specification, as this relates to an internal fire engineering field which falls outside of NSW RFS expertise.
- The separation of the required APZ's to IPA and OPA requirements is compliant with the pre-release edition of *Planning for Bush Fire Protection 2019*.

For any queries regarding this correspondence, please contact Adam Small on 1300 NSW RFS.

Yours sincerely,

Nika Fomin
Manager Planning & Environment Services
Planning and Environment Services