

PND Project Services has been requested by on behalf of Mr J. & Mrs A. Grosse to undertake a bushfire hazard assessment. The proposal seeks approval for the erection of a new secondary dwelling, upon land identified as Lot 21, D.P. 255534 and which is known as No.705 Kains Flat Road, Kains Flat, N.S.W, 2850.

Assessment

The subject site is identified as containing bushfire prone land on Councils Bushfire Prone Lands Map. Therefore, the provisions of *Planning for Bushfire Protection Guidelines* apply to the proposed development.

A Bushfire Hazard Assessment has been undertaken in support of the proposal and has been completed in accordance with the site assessment methodology of these documents and has determined compliance with RFS requirements.

The subject property is an existing residential allotment with street access to Kains Flat Road.

In accordance with the bushfire safety measures required to meet the assessed threat level, a construction level of BAL19 is the recommended minimum construction standard and consideration of the site-specific bushfire risk assessment, it is our opinion that when combined, they will provide a reasonable and satisfactory level of bushfire protection to the subject development and Rural Fire Service's requirements for new development in bushfire prone areas.

On this basis the proposal is considered to provide for an appropriate response to the issue of bushfire safety.

The vegetation that is considered to be the hazard to this proposal is situated on land that is up slope away from the property at an angle of approximately 4 degrees.

For the purposes of this assessment this vegetation is considered to be Grassland with Forest a further 20 metres beyond the boundary. The remaining vegetation within the study area is contained within the boundaries of established allotments and is managed grassland and of low threat to this proposal.

The calculations and assumptions outlined in this report show that the development will be required to comply with the construction requirements of AS 3959-2018 BAL-19 and any additional construction requirements contained within section 7.4, 7.5, 7.5.1,7.5.2, 7.9 (where applicable) of the Rural Fire Services document *Planning for Bushfire Protection 2019*.

The following table is a summary of the pertinent findings of this assessment.

Aspect	North	East	South	West
Vegetation type	Grassland / Forest	Grassland / Forest	Grassland	Grassland
Slope	< 5 degrees upslope	< 5 degrees downslope	Flat	< 5 degrees downslope
Setback within Lot 21, D.P. 255534	140 m	140 m	140 m	30 m
Setback outside Lot 21, D.P. 255534	N/A	N/A	N/A	110 m
Total setback	140 m	140 m	140 m	140 m
Bal level	BAL19	Bal 19	BAL 19	Bal 12.5

Utilities

Water

The property has 130,000 litres of tank water and additional water from a large dam on the subject site that is accessible for firefighting purposes.

Electricity

Mains electricity is available to the property with additional energy needs supplied by a photovoltaic roof system.

Gas

Bottled gas is installed and maintained in accordance with AS/NZS 1596:2014 and the requirements of relevant authorities, and metal piping is used. All fixed gas cylinders are kept clear of all flammable materials to a distance of 10m and shielded on the hazard side with connections to and from gas cylinders are metal. Polymer-sheathed flexible gas supply lines are not used and above-ground gas service pipes are metal, including and up to any outlets.

Landscaping

Any new fencing is to be constructed in accordance with section 7.6 of Planning for Bushfire Protection 2019.

All new landscaping to the site is to comply with the principles of Appendix 4 and section 3.7 of Planning for Bush Fire Protection 2019. In this regard the following landscaping principles are, where applicable, to be incorporated into the development:

- Suitable impervious areas being provided immediately surrounding the building such as courtyards, paths and driveways.
- Grassed areas/mowed lawns/ or ground cover plantings being provided in close proximity to the building.

- Restrict planting in the immediate vicinity of the building which may over time and if not properly maintained come in contact with the building.
- Maximum tree cover should be less than 30%, and maximum shrub cover less than 20%.
- Planting should not provide a continuous canopy to the building (i.e., trees or shrubs should be isolated or located in small clusters).
- When considering landscape species consideration needs to be given to estimated size of the plant at maturity.
- Avoid species with rough fibrous bark, or which retain/shed bark in long strips or retain dead material in their canopies.
- Use smooth bark species of trees species which generally do not carry a fire up the bark into the crown.
- Avoid planting of deciduous species that may increase fuel at surface/ ground level (i.e., leaf litter).
- Avoid climbing species to walls and pergolas.
- Locate combustible materials such as woodchips/mulch, flammable fuel stores away from the building.
- Locate combustible structures such as garden sheds, pergolas and materials such timber garden furniture way from the building.
- Use of low flammability vegetation species.

Access/Egress

All roads in the area are considered to be capable of handling emergency service vehicles. Access from the roadway onto the property is also considered to be adequate for firefighting purposes.

Conclusions

Based on the above report and with the implementation of the recommendation contained within this report the consent authority should determine that this development can comply with the requirements of AS 3959-2018 and 'Planning for Bushfire Protection' guidelines. The recommendations contained within this report are to be implemented in their entirety. Changing one aspect may have an adverse effect on the rest of the recommendations. Bushfires are affected by many external influences such as climactic conditions, vegetation type, moisture content of the fuel, slope of the land and human intervention to name a few and are difficult to predict.

This report does not intend to provide a guarantee that the subject property will survive if a bushfire should impact the surrounding area. The purpose of this report is to show the developments level of compliance or in some cases non-compliance with the New South Wales legislation regarding building in bushfire prone areas.

Where non-compliance is found measures will be suggested that should make the building less susceptible to the various attack mechanisms of a bushfire and comply with the performance requirements of the Building Code of Australia.

The opinions expressed in this report are based on the writers' experience and interpretation of the relevant guidelines and standards. Notwithstanding the above, these guidelines and standards are open to interpretation. All care has been taken to ensure that the opinions expressed in this report are consistent with past successful outcomes.

Some of the information used in the compilation of this assessment has been provided by the proponent or the proponent's representatives. While we believe this information to be true and have accepted the information in good faith however this company or its representatives will not accept any responsibility if the provided information is determined to be incorrect.

This document is to assist the consenting authorities with their assessment of this proposal.

The recommendations contained in this assessment reflect the normal conditions that are typically applied by the consent authority for a proposal such as this however the conditions of consent for the proposal will be supplied by the certifying authority on approval of the development and may not necessarily be the same as the recommendations of this assessment.