

# Bushfire Hazard Assessment Report



Department of Planning  
and Environment

*Issued under the Environmental Planning and Assessment Act 1979*

Approved Application No 22/7811

Granted on the 16 January 2023

Signed S Butler

Sheet No 19 of 20



Project: Establish APZ Plan for Existing Tourist Accommodation  
Lodge and Alterations and Additions  
13 Plum Pine Road, Smiggin Holes  
Kosciuszko National Park  
Lot 1 DP 1195135

DATE: AUGUST 2021

REPORT NO: 21104

REVISION: 03

PREPARED FOR: ALTITUDE – THE LODGE SMIGGINS

PREPARED BY: ACCENT TOWN PLANNING

- Preparation of Bushfire Reports for Development in Bushfire Prone Areas
- Bushfire Attack Level (BAL) Certificates
- Bushfire Evacuation Plans
- Construction Solutions & Advice for Bushfire Prone Areas



Accreditation No: BPD - 27149



## BUSHFIRE HAZARD ASSESSMENT

### ACCENT TOWN PLANNING

ABN 63 637 759 758

PO BOX 642  
JINDABYNE NSW 2627

Phone: (02) 6456 7176  
Email: [info@completeplanning.com.au](mailto:info@completeplanning.com.au)  
Web: [accenttownplanning.com.au](http://accenttownplanning.com.au)

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### DISCLAIMER

The recommendations provided in the summary of this report are a result of the analysis of the proposal in relation to the requirements of Planning for Bushfire Protection 2019. Utmost care has been taken in the preparation of this report however there is no guarantee of human error. The intention of this report is to address the submission requirements for Development Applications on bushfire prone land. There is no implied assurance or guarantee the summary conditions will be accepted in the final consent and there is no way Accent Town Planning is liable for any financial losses incurred should the recommendations in this report not be accepted in the final conditions of consent.

This bushfire assessment provides a risk assessment of the bushfire hazard as outlined in the PBP 2019 and AS3959 2018. It does not provide protection against any damages or losses resulting from a bushfire event.

## EXECUTIVE SUMMARY

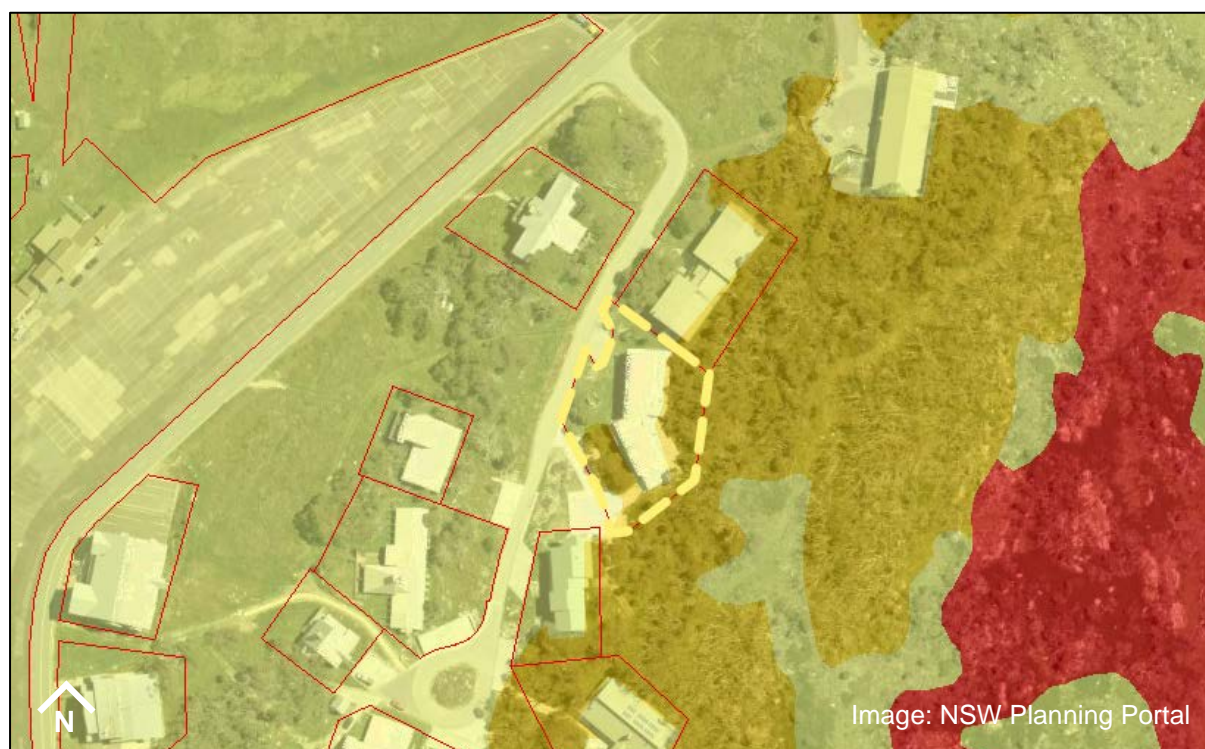
This bushfire assessment is for the proposed establishment of an APZ plan to be approved by NPWS and the proposed additions and alterations to an existing Lodge known as Altitude – The Lodge Smiggins located at Lot 1 DP1195135, 13 Plum Pine Road, Smiggin Holes NSW 2624.

The land is zoned tourist accommodation and has been identified as being in bushfire prone land, and hence as outlined in *Planning for Bushfire Protection – PBP 2019* (NSW RFS 2019) is considered Special Fire Protection Purpose (SFPP) and is required to obtain a BFSA from the RFS under section 100B of the RF Act.

The required Bushfire Attack Level for the commercial lodge will be:

- **Bushfire Attack Level of BAL Flame Zone for new work, not identified as repairs and maintenance.**

Pending compliance with the recommendations outlined in this report. The performance criteria and deemed to satisfy provisions outlined in Section 6.4 and 6.6 of PBP 2019 are found to be satisfied.



The assessment confirms the lot is located on Bushfire Prone Land and identifies the following:

- The bushfire threat is forest vegetation to the east and south of the existing lodge.
- The entire allotment is to be maintained as an inner protection area.
- Clearing will not exceed the clearing threshold permissible above which the Biodiversity Assessment Method (BAM) and offsets scheme to apply.
- No changes to existing road access are proposed as part of this application.
- Any new works will be required to achieve a Bushfire Attack Level of BAL FZ (Flame Zone) not identified as repairs and maintenance.
- Smiggin Holes is serviced by reticulated water and hydrant system with nearest hydrants located on Plum Pine Road.



## ASSET PROTECTION ZONES

An updated APZ is proposed to be established in conjunction with the Office of Environment and Heritage (OEH)/NPWS to create a defensible space adjoining the building to permit any new work to achieve a Bushfire Attack Level of BAL FZ (Flame Zone) not identified as repairs and maintenance.

Trees will be removed within the APZ to reduce the attached canopy from adjoining vegetation and overhanging the building. The owners of the lodge will work closely with OEH/NPWS to arrange this removal.



Asset protection zones are the most strategically valuable defence against radiant heat and flame, and to lesser extent embers. The landscaped areas of the allotment shall be maintained as an inner protection area in perpetuity.

To allow for emergency service personnel and residents to undertake property protection activities, the defensible space permits unobstructed pedestrian access is to be provided around the building.

The landscaping shall maintain the inner protection area effectively free of available fuel. Landscaping plants may be used in this area so long as they are selected for their low combustibility, by virtue of high moisture content, low volatile oil content, high leaf minerals, large fleshy leaves, absence of shredding bark. They should be placed so as not to provide either vertical or horizontal connectedness of plant material and avoid overhanging roof lines or contact with the building.

## CONSTRUCTION

Any new works will be required to achieve a Bushfire Attack Level of BAL FZ (Flame Zone) not identified as repairs and maintenance as per AS3959-2018, with the exception that the construction requirements shall be varied to comply with the requirements of Section 7.5 of the NSW Rural Fire Service *Planning for Bushfire Protection 2019*.

## UTILITIES

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.

## **WATER**

All above ground water pipes external to the building are to be metal.

Smiggin Holes is serviced by reticulated water. A hydrant system is located along Plum Pine Road. The location and distance to the hydrants will be consistent with the requirements of the PBP 2019.

## **GAS**

If gas is connected to the lodge on the subject land, must perform as per the following criteria:

- Bottled gas is installed and maintained in accordance with AS 1596 and the requirements of relevant authorities. Metal piping is to be used.
- All fixed gas cylinders are kept clear of all flammable materials to a distance of 10 metres and shielded on the hazard side of the installation.
- If gas cylinders need to be kept close to the building, the release valves are directed away from the building and at least 2 metres away from any combustible material, so that they do not act as a catalyst to combustion. Connections to and from gas cylinders are metal.
- Polymer sheathed flexible gas supply lines to gas meters adjacent to buildings are not to be used.

## **EVACUATION AND EMERGENCY MANAGEMENT**

The intent of measures is to provide suitable emergency and evacuation (and relocation) arrangements for occupants of special fire protection purpose developments.

To achieve this, the following conditions shall apply:

A building evacuation diagram, site layout diagram and Statement of Action are to be provided in each building in accordance with the NSW Rural Fire Service Guidelines for the Preparation of Emergency/Evacuation Plan and with Australian Standard AS 3745 2010 'Planning for Emergencies in Facilities'.

## 1. PROPOSAL

This Bush Fire Assessment Report has been compiled for submission to the Department of Planning for the purpose of assessment under Section 100B of the RF Act and is also considered “integrated development” under Section 4.46 of *Environmental Planning and Assessment Act 1979* (EP&A Act) and submission to OEH/NPWS for the establishment of an APZ Plan to permit any new work not identified as repairs and maintenance to be constructed to achieve BALFZ.

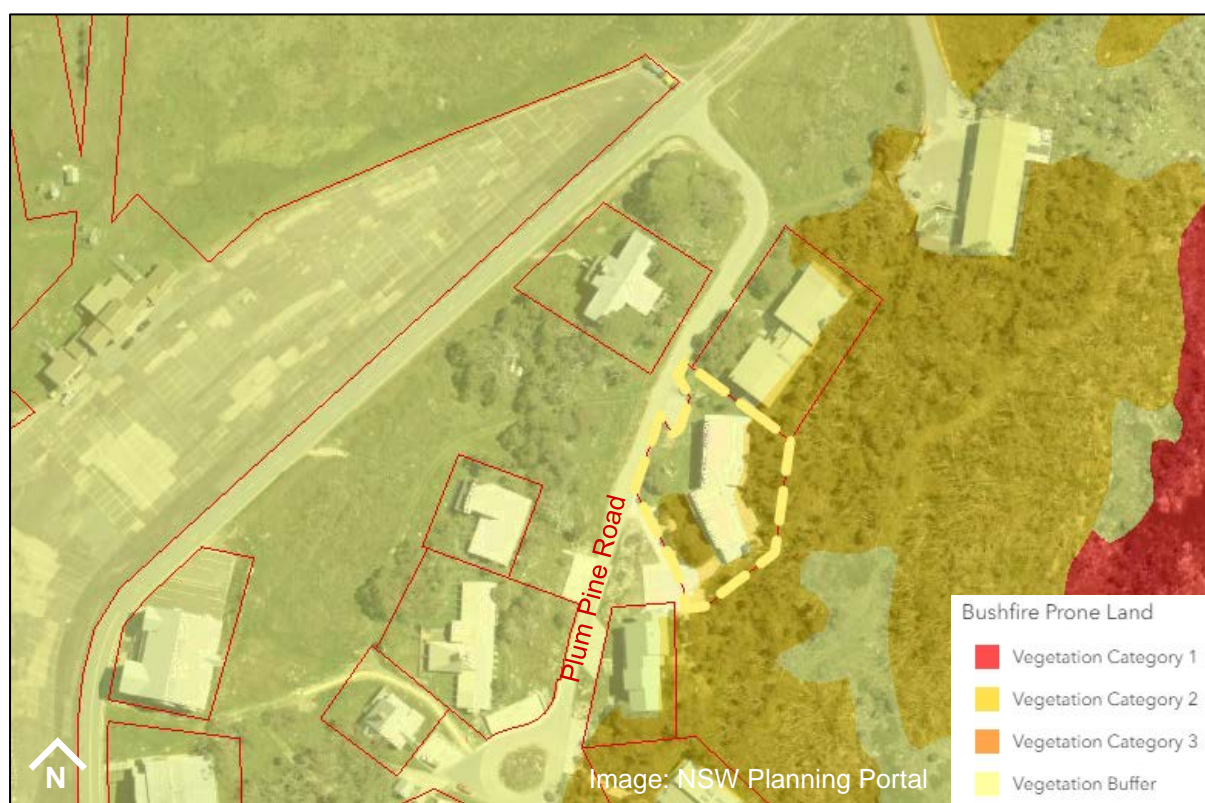
The report has been prepared in accordance with the submission requirements of Appendix 4 of *Planning for Bush Fire Protection* (NSW RFS 2019) and identifies the proposal can meet the appropriate objectives and performance criteria of Section 6.4 and 6.6 *Planning for Bush Fire Protection* (NSW RFS 2019).

The assessment confirms the subject lot is mapped as bushfire prone.

Accent Town Planning was commissioned to provide this bushfire assessment. Accredited bushfire assessor, Matthew Stewart inspected the site on 14 May 2021 and 23 June 2021.

- Figure 1 – shows the subject lot location.
- Figure 2 – provides a broad scale aerial view of the subject site.
- Figure 3 – shows the proposed plans.

**FIGURE 1 SITE LOCATION**





**FIGURE 2      BROAD SCALE AERIAL VIEW OF THE SUBJECT SITE**



**FIGURE 3      CLOSE UP AERIAL VIEW OF SUBJECT LOT**





## 2. PLANNING LAYERS

The following planning layers are described in Table 1 and shown in the Figures below:

**TABLE 1 PLANNING LAYERS**

MAP	FIGURE	DESCRIPTION
<b>Bushfire Prone Land Map</b>	4	The subject lot is mapped “Vegetation Buffer” and “Vegetation Category 2”.
<b>LEP Zone Map</b>	5	The subject lot is zoned as “E1 – National Parks and Nature Reserves”
<b>Vegetation Mapping</b>	6	The vegetation surrounding the existing lodge has been mapped as:  - Sub-alpine Shrub-Grass Woodland  According to Keith (2004) this formation is classified as both “Woodland.” However, under PBP 2019, all sub-alpine woodland vegetation is classified as “Forest” vegetation.
<b>Biodiversity Values Map</b>	7	Woodland vegetation within the allotments is identified as an area with high biodiversity values.

**FIGURE 4 BUSHFIRE PRONE MAP**

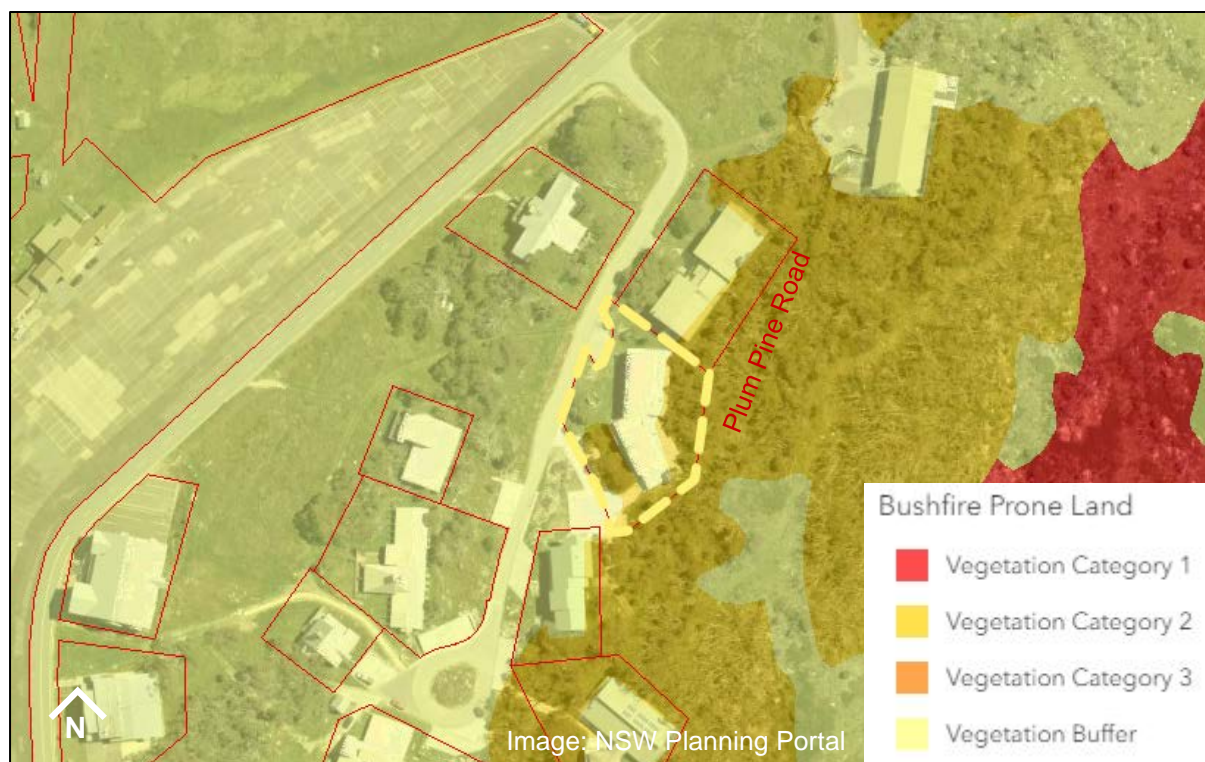




FIGURE 5 LEP MAP



FIGURE 6 VEGETATION MAPPING



**FIGURE 7      BIODIVERSITY VALUES MAP**





### 3. SITE DESCRIPTION

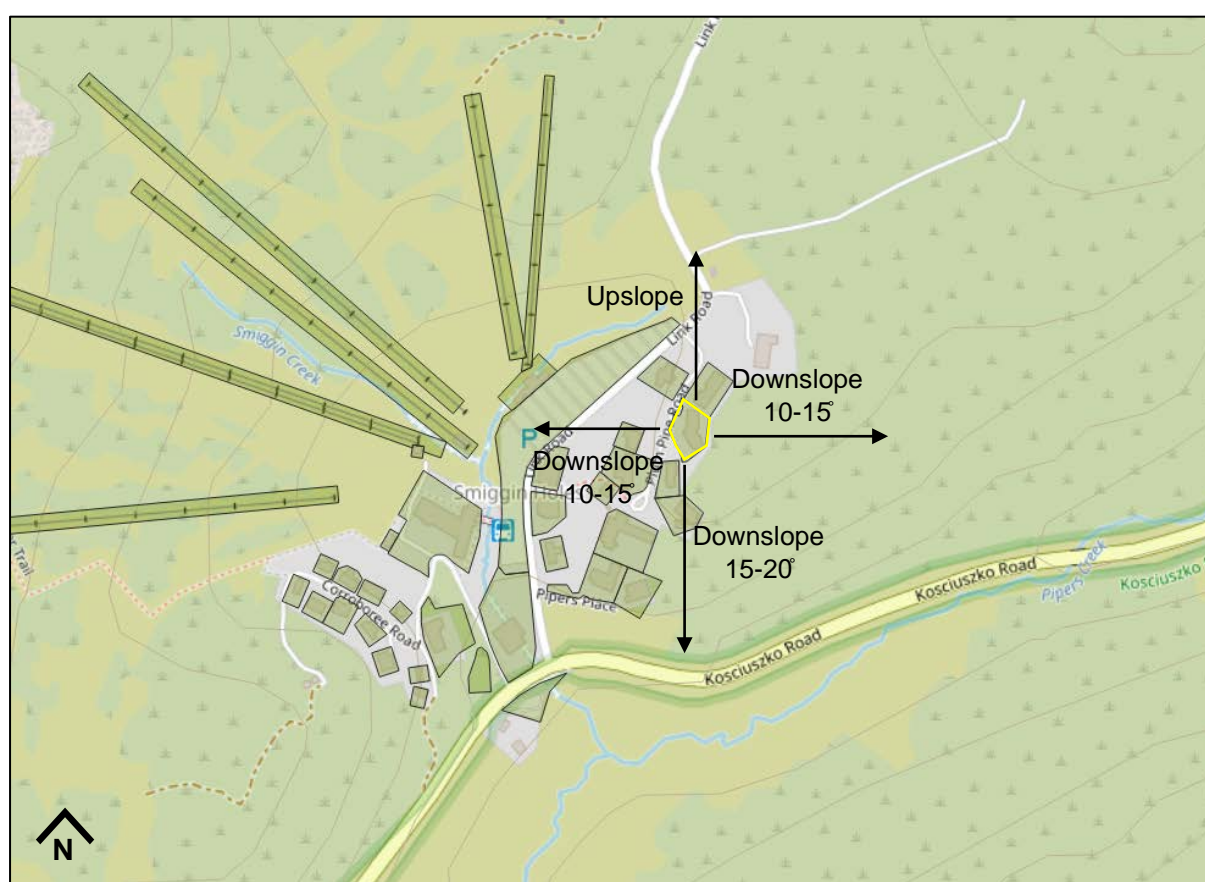
#### 3.1. Slope and aspect of the site within 100 m of the site

The slope that would most significantly influence fire behaviour was determined to be to the east and south with *Forest* vegetation under a downslope of 15 – 20° from the Lodge.

The Australian Standard AS3959-2018 identifies that the slope of the land under the classified vegetation is much more important than the slope between the site and the edge of the classified vegetation.

As can be seen in Figure 8 the land surrounding the existing Lodge exhibits a downslope to the east and south of 10 – 15° under sub-alpine woodland vegetation which is classified as *Forest* vegetation under PBP 2019. A downslope of 10 – 15°, is also present to the north and west through managed land of other tourist accommodation lodges and the Smiggin Holes Carpark.

**FIGURE 8 SLOPE**



### 3.2. Vegetation formation within 140 m of proposed dwelling

Smiggin Holes is comprised of sub-alpine woodland and managed land. Within 140m of the site, the area is a combination of managed land and sub-alpine shrub-grass woodland.

As seen in Figure 6, within 140m of 13 Plum Pine Road there is one vegetation type:

- Sub-alpine Shrub-Grass Woodland

As mentioned above, within 140m of the existing lodge the vegetation is predominately comprised of Sub-alpine Shrub-Grass Woodland which is comparable to *Woodlands* classification of *Keith* as it is dominated by an open to sparse layer of eucalypts with the crowns rarely touching as well as diverse ground cover of grasses and herbs with shrubs sparsely distributed. However, being a type of sub-alpine woodland, this woodland vegetation is recognised as *Forest* vegetation by NSW Rural Fire Service under Table A1.12.7 of the *Planning for Bushfire Protection 2019* document.

Most of the remaining area is comprised of managed land as cleared and maintained for ski runs, tourist accommodation and carparking during winter and each allotment maintained as inner protection areas.

The vegetation formations are described below and summarised in Table 2.

**TABLE 2      PREDOMINATE VEGETATION CLASSIFICATION**

	Vegetation Formation	Effective Slope	APZ Proposed	Photo
North	Forest	Upslope	5.5m (Entire lot to be managed as IPA)	1
East	Forest	Downslope 10 – 15°	11.5m (Entire lot to be managed as IPA)	2
South	Forest	Downslope 15 – 20°	6m (Entire lot to be managed as IPA)	3
West	Forest	Downslope 10 – 15°	17m (Entire lot to be managed as IPA)	4



## Site Photos

Photo 1 View to North



Photo 2 View to East





Photo 3 View to South



Photo 4 View to West





## 4. BIODIVERSITY ASSESSMENT

### 4.1 Biodiversity Offsets Scheme Assessment

It is vital that all development and clearing follows the Biodiversity Offsets Scheme which has been created to avoid, minimise and offset impacts on biodiversity.

There are two key elements to the Biodiversity Offsets Scheme, as follows:

- A. Developers and landholders who undertake development or clearing, generating a credit obligation which must be retired to offset their activity.
- B. Landholders who establish a biodiversity stewardship site on their land, generating credits to sell to developers or landholders who require those credits, to securely offset activities at other sites.

This report will address and assess the proposed asset protection zone under element A. To complete this assessment, we will evaluate the four triggers and demonstrate that the proposed asset protection zone should not trigger the Biodiversity Offsets Scheme and therefore the owner will not be required to offset their proposed activities.

#### 4.1.1 Clearing Threshold

**FIGURE 9 CLEARING THRESHOLD**

Minimum lot size associated with the property	Threshold for clearing, above which the BAM and offsets scheme apply
Less than 1 ha	0.25 ha or more
1 ha to less than 40 ha	0.5 ha or more
40 ha to less than 1000 ha	1 ha or more
1000 ha or more	2 ha or more

The proposed APZ area less the existing building footprint is approximately 0.2 hectares and hence clearing will be less than 0.25 hectares. IPA requirements allow tree canopy cover less than 15%. Therefore clearing to establish and maintain APZ will be within the proposed asset protection zone are permissible for an allotment of this size.

As a result, no offsets for the proposed asset protection zones would be required due to this trigger.

#### 4.1.2 Biodiversity Values Map

In order to assess if the development is located within an area identified with Biodiversity Values, we have completed a search using the Biodiversity Values Map. As shown in Figure 7, the proposed asset protection zone does contain areas with high biodiversity values. However, no building works are proposed within these areas and hence does not trigger the Biodiversity Offsets Scheme.

#### 4.1.3 Test of Significance

To assess the impact of the proposed asset protection zone on threatened species we have completed a test of significance to determine if the proposed APZ is likely to significantly affect threatened species, ecological communities or their habitats.

We have considered the level of impact to the biodiversity of the area and to do this we have assessed the significance of any of the proposed activities at the site and surrounding alpine ecosystem.

Our assessment of the impact on threatened species and habitats finds:

- No predicted impacts to threatened species habitat at all.
- No endangered ecological communities or critically endangered ecological communities in the subject land.
- No predicted impacts to threatened species habitat at all.
- No removal of breeding habitats or fragmentation of habitats as a result of clearing below the permissible clearing threshold so will unlikely impact the long-term survival of any species or community.
- The lot does contain areas with High Biodiversity Values. However, no building works are proposed and selective clearing of vegetation for APZ is to be undertaken under the guidance of NPWS.
- Vegetation removal is a key threatening process and minimal vegetation removal (under clearing threshold limits) is proposed.

Similarly, the test shows that the proposed asset protection zone is not likely to have a significant impact on threatened species or their habitat and will not be carried out in a declared area of outstanding biodiversity value. Therefore, the applicant will not be required to apply the Biodiversity Offsets Scheme or prepare a species impact statement (SIS) as a result of this trigger.

#### **4.1.4 Areas of Outstanding Biodiversity Values**

Protecting the habitats of endangered species is vital to the conservation and recovery of these species. Areas of declared critical habitat under the Threatened Species Conservation Act 1995, have become the first Areas of Outstanding Biodiversity Value (AOBV) in NSW with the commencement of the Biodiversity Conservation Act 2016.

The Biodiversity Conservation Regulation 2017 establishes the criteria for declaring AOBVs. The criteria have been designed to identify the most valuable sites for biodiversity conservation in NSW.

Kosciuszko National Park is not listed as an Area of Outstanding Biodiversity under the Biodiversity Conservation Act 2016. Therefore, due to the subject site being located within Kosciuszko National Park the proposed asset protection zone will not be within an area of outstanding biodiversity values and hence not trigger the BOS.

#### **4.1.5 BOS Conclusion**

As a result, clearing for the proposed asset protection zone will be under the clearing threshold and will not trigger the biodiversity offset scheme. Therefore, a biodiversity assessment report by a certified biodiversity assessor is not necessary.



## 5. BUSHFIRE THREAT ASSESSMENT

### 5.1 Asset Protection Zones (APZ)

PBP 2019 Table A1.12.7 has been used to determine the width of the required APZ for the proposed development using the vegetation and slope data identified. An FFDI of 50 was used for this location. An APZ should be maintained from the commencement of building works and maintained for perpetuity.

The vegetation classification for bushfire purposes for this site is "Forest". Forest vegetation can be managed as an Inner Protection Area (IPA) and Outer Protection Area (OPA). The IPA is critical for providing a defendable space and managing heat intensities at the building surface. The OPA serves to reduce the potential length of flames, filtering embers and reducing the likelihood of crown fires.

The IPA should provide a tree canopy cover less than 15% and any tree canopies must be located greater than 2 metre from any part of the proposed dwelling roofline. Garden beds of flammable shrubs should not be located under trees and should be no greater than 10m from an exposed window or door. Trees should have lower limbs removed up to a height of 2 metres above ground.

An OPA should provide a tree canopy cover of less than 30% and should have understory managed (mowed) to treat all shrubs and grasses on an annual basis in advance of the fire season (September).

Table 3 below shows the APZ and BAL Determination for the existing lodge.

**TABLE 3 APZ AND BAL DETERMINATION**

	NORTH	EAST	SOUTH	WEST
Gradient	Upslope	Downslope 10-15°	Downslope 15-20°	Downslope 10-15°
Vegetation	Forest	Forest	Forest	Forest
Proposed distance to be provided between edge of building and vegetation	5.5m Entire Lot to be Managed as IPA	11.5m Entire Lot to be Managed as IPA	6m Entire Lot to be Managed as IPA	17m Entire Lot to be Managed as IPA
APZ required by PBP 2019 for BAL FZ under Table A1.12.7	<11 m	<21 m	<26 m	<21 m
BAL Proposed	BAL FZ	BAL FZ	BAL FZ	BAL FZ

## 5.2. Relevant Construction Standard

The Australian Standard AS 3939 – 2018 is the enabling standard that addresses the performance requirements of both parts 2.3.4 and Part GF5.1 of the Building Code of Australia for the construction of the Class 1, 2 and Class 3 buildings within a designated Bushfire Prone Area.

The following was determined for this site:

Relevant fire danger index..... FFDI 50

The applicant proposes all new construction (Not identified as repairs and maintenance) to achieve BAL FZ.

## 5.3. Safe Operational Access

The Planning for Bushfire Protection requires the provision of safe operational access to structures and water supply for emergency services, while residents are seeking to evacuate from an area.

The PBP (2019) requires the provision of safe operational access to structures and water supply for emergency services, while residents are seeking to evacuate from an area.

- Plum Pine Road is a two-wheel drive, all weather road. The widths and design would allow safe access for firefighters while residents are evacuating an area. The capacity of road surfaces is sufficient to carry fully loaded firefighting vehicles.

## 5.4. Emergency Management

The intent of measures is to provide suitable emergency and evacuation (and relocation) arrangements for occupants of special fire protection purpose developments.

To achieve this, the following conditions shall apply:

*A building evacuation diagram, site layout diagram and Statement of Action are to be provided for the proposed development in accordance with Building Emergency Procedures and Bush Fire Evacuation Plan, the NSW Rural Fire Service Guidelines for the Preparation of Emergency/Evacuation Plan and with Australian Standard AS 3745 2010 'Planning for Emergencies in Facilities'.*

The owners are advised to obtain the NSW Rural Fire Service – “Guidelines for the Preparation of Bush Fire Evacuation Plans” & ‘Bush Fire Survival Plan’ In the event of emergency, the owners should ensure they are familiar with the RFS Bush Fire Alert Levels and use their Bush Fire Survival Plan.

## 5.5. Adequate Water and Utility Services

Smiggin Holes is serviced by reticulated water. A hydrant system is located along Plum Pine Road. The location and distance to the hydrants will be consistent with the requirements of the PBP 2019.

Any bottled gas will be installed and maintained in accordance with AS1596 and the requirements of the relevant authority. If gas cylinders need to be kept close to the buildings, the release valves must be directed away from the building and away from any combustible material. Polymer sheathed flexible gas supply lines to gas meters adjacent to buildings are not to be used.

## 6. LANDSCAPING

An APZ is required to be established and should be maintained for perpetuity as specified.

When landscaping, vegetation should be located greater than 2 m from any part of the roofline of the lodge. Garden beds of flammable shrubs are not to be located under trees and should not be within 10 m of an exposed window or door. Trees should have lower limbs removed up to a height of 2 m above the ground.

Appendix 4 (PBP 2019) provides guidelines for landscaping and Bushfire Provisions within the APZ. To incorporate bushfire protection measures into future development, the owner is advised to consider the following:

- Avoid planting trees species with rough fibrous bark, or which retain/shed bark in long strips or retain dead material in their canopy.
- Avoid planting deciduous species that may increase fuel at surface/ground level by the fall of leaves.
- Avoid climbing species to walls and pergolas.
- Locate combustible materials such as woodchips/mulch, flammable fuel stores (LPG gas bottles) away from the building.
- Locate combustible structures such as garden sheds, pergolas and materials such as timber furniture away from the building.
- Ensure any vegetation planted around the house is a suitable distance away so these plants do not come into physical contact with the house as they mature.

The property should be developed to incorporate suitable impervious area surrounding the house, including courtyards, paths and driveways.



## 7. HOW THIS PROPOSAL MEETS DEEMED TO SATISFY SOLUTION

### DEMONSTRATION COMPLIANCE UNDER SECTION 6.4 – SPECIFIC OBJECTIVES PLANNING FOR BUSHFIRE (2019)

Performance Criteria	Complies	Acceptable solutions
<b>The intent may be achieved where:</b>		
<ul style="list-style-type: none"> <li>provide an appropriate defensible space</li> </ul>	<input checked="" type="checkbox"/>	See Table 3 for APZ distances.
<ul style="list-style-type: none"> <li>site the building in a location which ensures appropriate separation from the hazard to minimise potential for material ignition</li> </ul>	<input checked="" type="checkbox"/>	No change to existing building location. Defensible space for APZ to be established and approved with OEH to comply with BAL FZ for New Construction. (Not identified as repairs and maintenance)
<ul style="list-style-type: none"> <li>provide a better bush fire protection outcome for existing buildings</li> </ul>	<input checked="" type="checkbox"/>	Proposed alterations and additions will meet Defensible space for APZ to be established and approved with OEH to comply with BAL FZ for New Construction. (Not identified as repairs and maintenance)
<ul style="list-style-type: none"> <li>new buildings should be located as far from the hazard as possible and should not be extended towards or situated closer to the hazard than the existing buildings (unless they can comply with section 6.8);</li> </ul>	<input checked="" type="checkbox"/>	Not applicable.  Establishment of BALFZ APZ and replacement of cladding and windows to existing ski lodge to be undertaken as repairs and maintenance.
<ul style="list-style-type: none"> <li>ensure there is no increase in bush fire management and maintenance responsibility on adjoining landowners without their written confirmation</li> </ul>	<input checked="" type="checkbox"/>	Establishment of BALFZ APZ and replacement of cladding and windows to existing ski lodge to be undertaken as repairs and maintenance.
<ul style="list-style-type: none"> <li>ensure building design and construction enhances the chances of occupant and building survival</li> </ul>	<input checked="" type="checkbox"/>	Proposed external works to comply with BAL FZ for New Construction. (Not identified as repairs and maintenance) as outlined in AS3959-2018.
<ul style="list-style-type: none"> <li>provide for safe emergency evacuation procedures including capacity of existing infrastructure (such as roads)</li> </ul>	<input checked="" type="checkbox"/>	Access to the lodge is provided via Plum Pine Road which is an all-weather two-wheel drive access road.  Emergency Evacuation plan will be provided in accordance with Perisher Blue Ski Resort evacuation management plan. An individual evacuation plan will be prepared as described in section 4.4. of this report.

**DEMONSTRATION COMPLIANCE UNDER SECTION 6.6 – SPECIFIC OBJECTIVES  
PLANNING FOR BUSHFIRE (2019)**

Performance Criteria	Complies	Acceptable solutions
<b>The intent may be achieved where:</b>		
<ul style="list-style-type: none"> <li>provide an appropriate defendable space</li> </ul>	<input checked="" type="checkbox"/>	See Table 3 for APZ distances.
<ul style="list-style-type: none"> <li>provide a better bush fire protection outcome for existing structures (e.g. via ember protection measures)</li> </ul>	<input checked="" type="checkbox"/>	No change to existing building location. Defendable space for APZ to be established and approved with OEH to comply with BAL FZ for New Construction. (Not identified as repairs and maintenance)
<ul style="list-style-type: none"> <li>ensure new building work complies with the construction standards set out in AS 3959;</li> </ul>		Defendable space for APZ to be established and approved with OEH to comply with BAL FZ for New Construction. (Not identified as repairs and maintenance)
<ul style="list-style-type: none"> <li>to ensure ongoing management and maintenance responsibilities are in place where APZs are proposed outside of the sub lease or leasehold area</li> </ul>		Defendable space for APZ to be established and approved with OEH to comply with BAL FZ for New Construction. (Not identified as repairs and maintenance)
<ul style="list-style-type: none"> <li>written consent from the land managers is provided for all proposed works outside of the sub lease or leasehold area</li> </ul>	<input checked="" type="checkbox"/>	Defendable space for APZ to be established and approved with OEH to comply with BAL FZ for New Construction. (Not identified as repairs and maintenance)
<ul style="list-style-type: none"> <li>proposed APZs outside of the sub lease or leasehold area are supported by a suitable legal mechanism to ensure APZs are managed under a binding legal agreement in perpetuity</li> </ul>	<input checked="" type="checkbox"/>	An APZ plan is proposed to be approved by OEH within the existing lease area.
<ul style="list-style-type: none"> <li>ensure building design and construction standards enhance the chances of occupant and building survival;</li> </ul>	<input checked="" type="checkbox"/>	Defendable space for APZ to be established and approved with OEH to comply with BAL FZ for New Construction. (Not identified as repairs and maintenance)
<ul style="list-style-type: none"> <li>provide safe emergency evacuation procedures.</li> <li>Any additional construction requirements should be commensurate with the following: <ul style="list-style-type: none"> <li>the scope of the proposed works, including any increase in size and footprint of the building</li> <li>any additional capacity for the accommodation of guests and/or staff on site</li> <li>the cost associated with the proposed upgrade of any building.</li> </ul> </li> </ul>	<input checked="" type="checkbox"/>	<p>Access to the lodge is provided via Plum Pine Road which is an all-weather two-wheel drive access road.</p> <p>Emergency Evacuation plan will be provided in accordance with Perisher Blue Ski Resort evacuation management plan. An individual evacuation plan will be prepared as described in section 4.4. of this report.</p> <p>No change to existing bed numbers proposed.</p>

## APPENDIX I DEFINITION OF ASSET PROTECTION ZONES

Vegetation within the APZ should be managed in accordance with APZ specifications for the purposes of limiting the travel of a fire, reducing the likelihood of direct flame contact and removing additional hazards or ignition sources. The following outlines some general vegetation management principles for APZs:

1. Discontinuous shrub layer (clumps or islands of shrubs not rows)
2. Vertical separation between vegetation stratum
3. Tree canopies not overhanging structures
4. Management and trimming of trees and other vegetation in the vicinity of power lines and tower lines in accordance with the specifications in "Vegetation Safety Clearances" issued by Energy Australia (NS179, April 2002)
5. Maintain low ground covers by mowing / whipper snipper / slashing; and
6. Non-combustible mulch e.g. stones and removing stores of combustible materials
7. Vegetation to be planted should consist of fire retardant/ less flammable species strategically located to reduce attack from embers (i.e. as ember traps when in small clumps and short wind breaks).

Typical Inner and Outer Protection Areas.

