

Bushfire Hazard Assessment Report



Project: External Alterations and Repairs to an Existing Ski Lodge
4 Spencers Creek Road, Charlotte Pass
Kosciuszko National Park
Lot 107 DP 1242013

DATE: APRIL 2022
REPORT NO: 21105
REVISION: 03
PREPARED FOR: SOUTHERN ALPS SKI CLUB C/- TIM MOORE
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

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A handwritten signature in black ink, appearing to read 'Katy Murphy', is positioned below the name.

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A handwritten signature in black ink, appearing to read 'Matthew Stewart', is positioned below the name.

Matthew Stewart
FPAA BPAD Accredited Bushfire Practitioner – No 27149

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 Pty Ltd 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

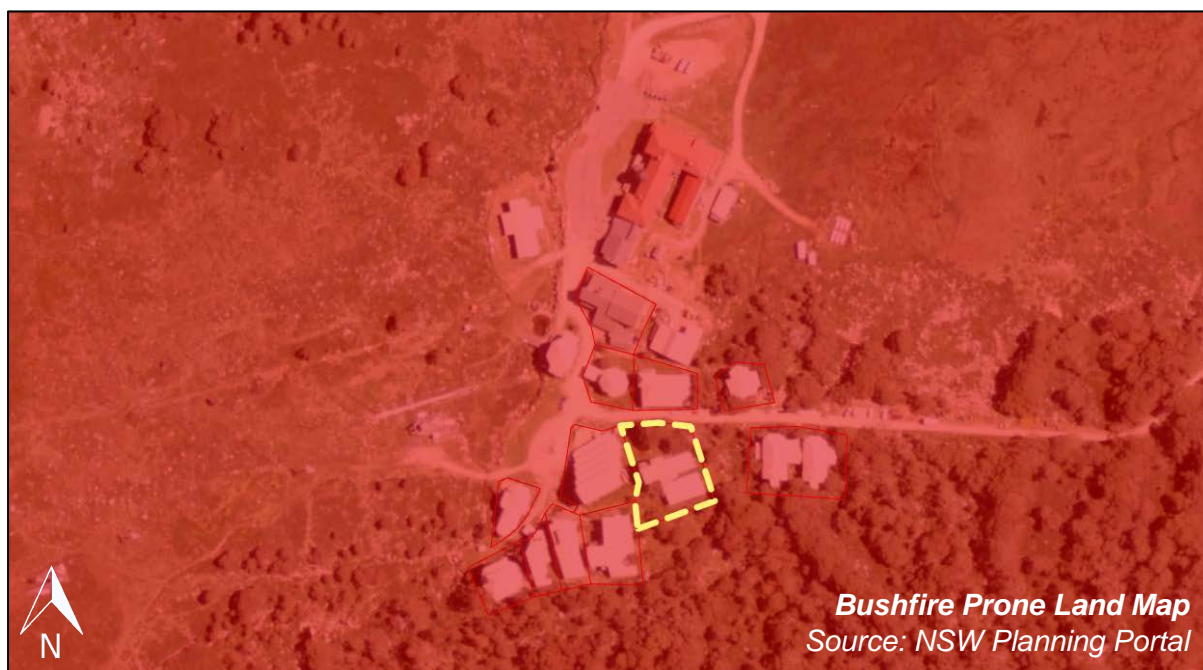
This bushfire assessment is for external alterations and repairs including replacement roofing, cladding and windows to existing ski lodge, known as Southern Alps Ski Club. The existing ski lodge is located at Lot 107 DP1242013, 4 Spencers Creek Road, Charlotte Pass NSW 2624.

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.

It is recommended that all **new works** in the proposed building envelope meet the below requirements:

- **BAL 40 on the North and West elevations and BAL FZ on the South and East elevations.**
- **The external alterations and repairs comply with the requirements of section 6.5 - Minor Development in SFPP Facilities of the PBP 2019 and are classified as minor non-structural building alterations (external).**

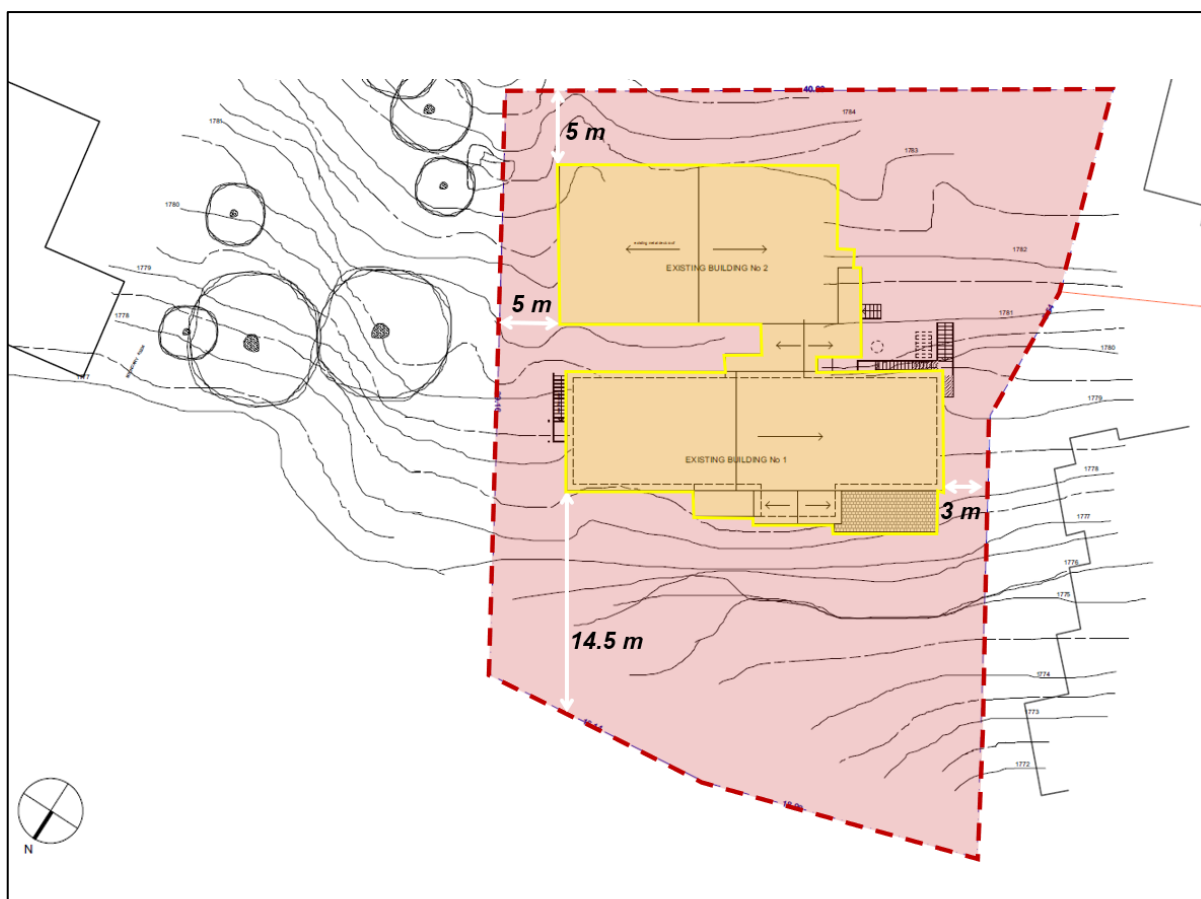
Pending compliance with the recommendations outlined in this report. The performance criteria and deemed to satisfy provisions of infill development within the Alpine Resorts outlined in Section 6.4, 6.5 and 6.6 of PBP 2019 are found to be satisfied.



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

- The predominant bushfire threat is *Woodland* vegetation to the South of the existing lodge.
- The entire allotment is to be maintained as an Inner Protection Area (IPA).
- Clearing will not exceed the clearing threshold permissible above which the Biodiversity Assessment Method (BAM) and offsets scheme to apply.
- The proposed APZ is not within the identified terrestrial biodiversity areas.
- No changes to existing road access are proposed as part of this application.
- Charlotte Pass is serviced by reticulated water and hydrant system with nearest hydrants located on Spencers Creek Road.

ASSET PROTECTION ZONES



The entire allotment will be maintained as an Inner Protection Area (IPA). The proposed external alterations and repairs meet the requirements of section 6.5 - Minor Development in SFPP Facilities of the PBP 2019 and are classified as minor non-structural building alterations (external). The development types included in section 6.5 of the PBP 2019 do not have any influence on potential bushfire impacts and the bush fire protection of the building. For this reason, the proposed alterations and repair works are not required to comply with the BAL outlined in Table 3.

Asset protection zones are the most strategically valuable defence against radiant heat and flame, and to lesser extent embers. To allow for emergency service personnel and residents to undertake property protection activities, a defendable space that permits unobstructed pedestrian access is to be provided around the building.

Native landscaping plants are proposed 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

All new works to **BAL 40 on the North and West elevations and BAL FZ on the South and East elevations** 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*.

The proposed repair works consist primarily of the replacement of existing cladding, windows and doors. This development type falls under *6.5 Minor Development in SFPP Facilities* of the PBP 2019. The opening and/or external glazed area of the new windows and doors will not be increased in size and will consist of a like-for-like replacement. The new cladding also falls under section 6.5 of the PBP 2019, these development types do not have any influence on potential bushfire impacts and the

bushfire protection of a building. With this in mind, the chosen cladding, windows and doors have been selected to improve the bushfire protection outcome for the lodge and its occupants.

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 firefighting activities. To achieve this, the following conditions shall apply:

WATER

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

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).

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, 6.5 and 6.6 *Planning for Bush Fire Protection* (NSW RFS 2019).

The Northern and Western elevations adjoin managed land and are shielded from direct radiant heat arising from bushfire attack as outlined in *A1.8 Shielding* in the PBP 2019. Adjoining managed land and shielding allow for BAL 40 on these elevations.

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 24 February 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

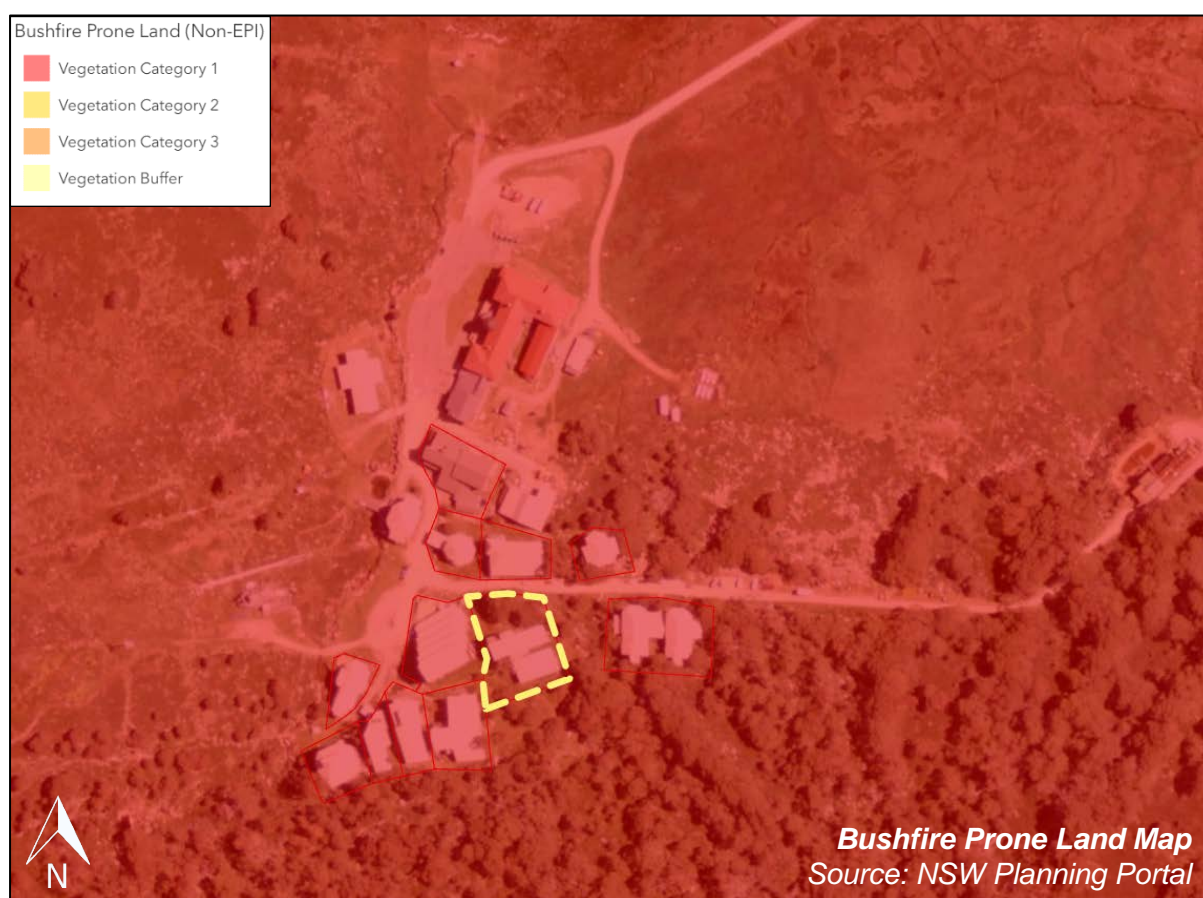


FIGURE 2 BROAD SCALE AERIAL VIEW OF THE SUBJECT SITE

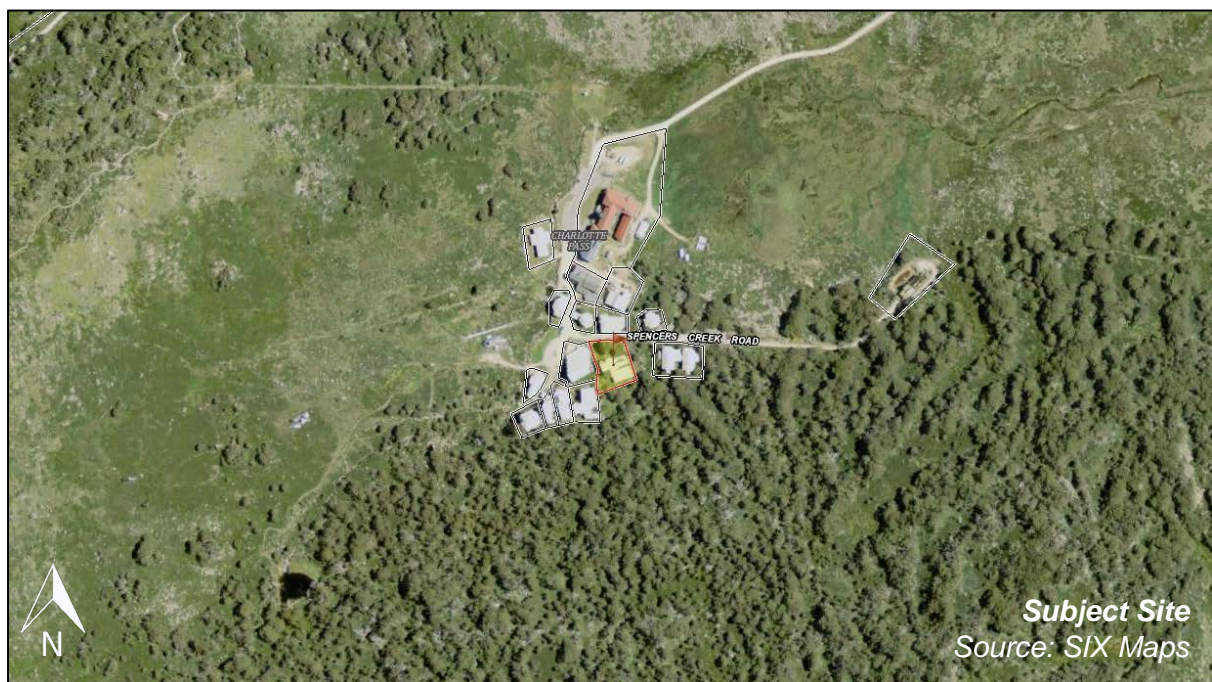


FIGURE 3 CLOSE UP AERIAL VIEW OF SUBJECT LOT



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
Bushfire Prone Land Map	4	The subject lot is mapped as “Vegetation Category 1”.
LEP Zone Map	5	The subject lot is zoned as “E1 – National Parks and Nature Reserves”
Vegetation Mapping	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” and “Forest” depending on the density of the vegetation.
Biodiversity Values Map	7	Allotment has areas identified with high biodiversity values. See Biodiversity and Aboriginal Heritage Assessment provided.

FIGURE 4 BUSHFIRE PRONE MAP

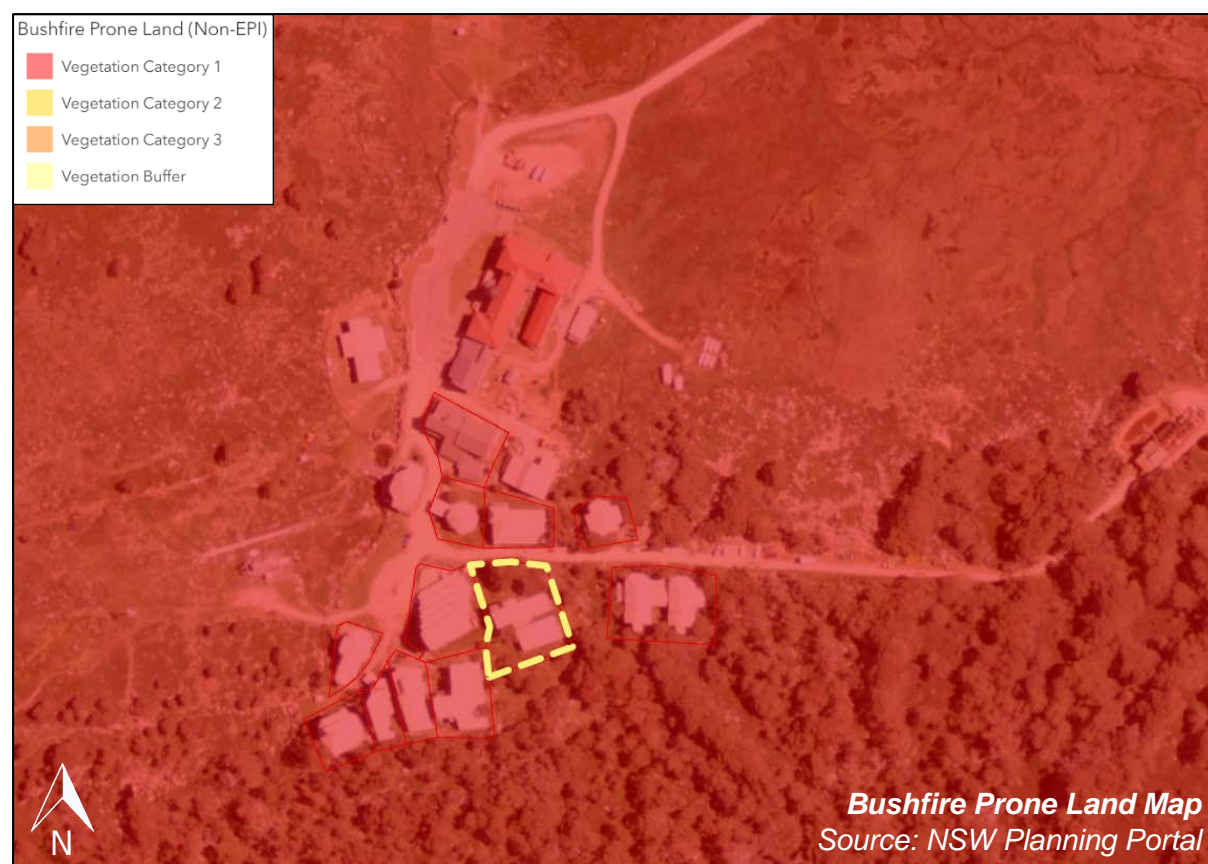


FIGURE 5 LEP MAP



FIGURE 6 VEGETATION MAPPING

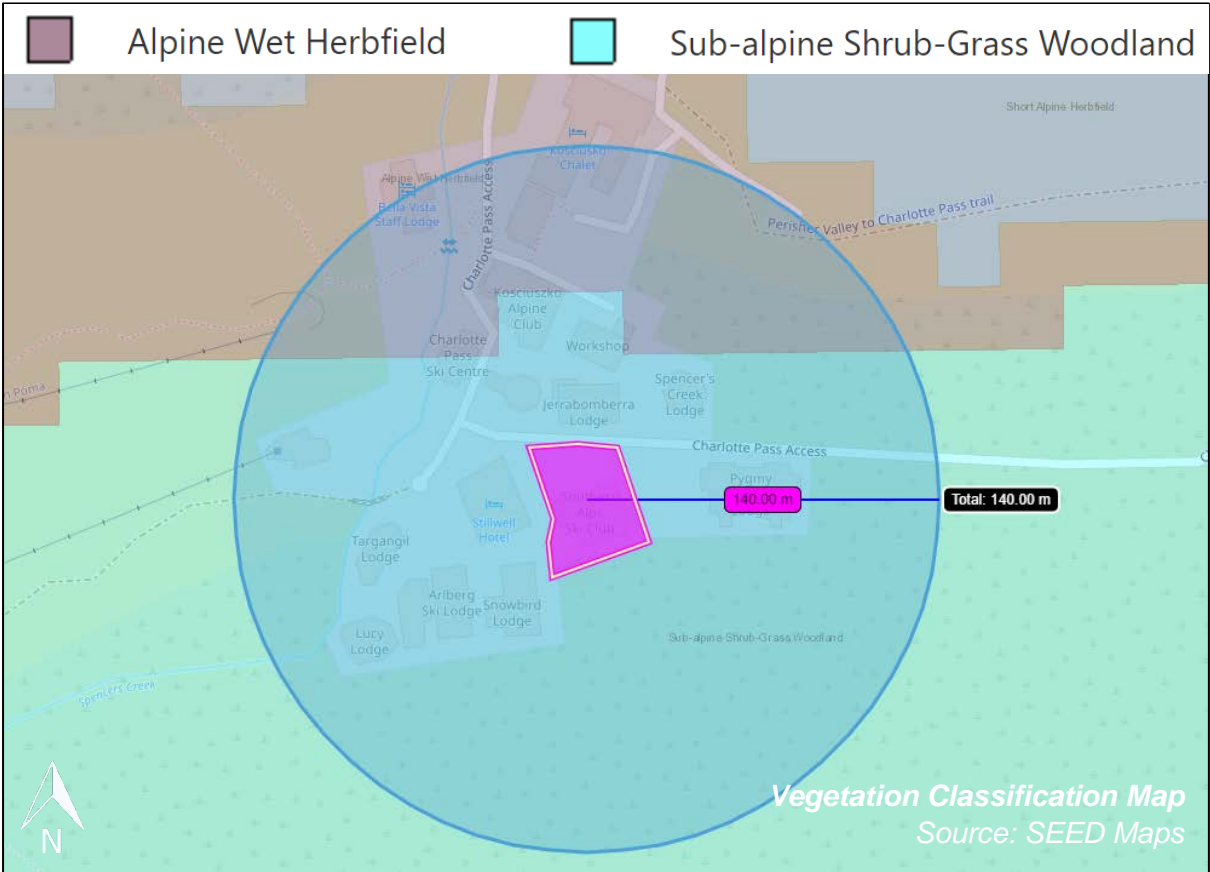
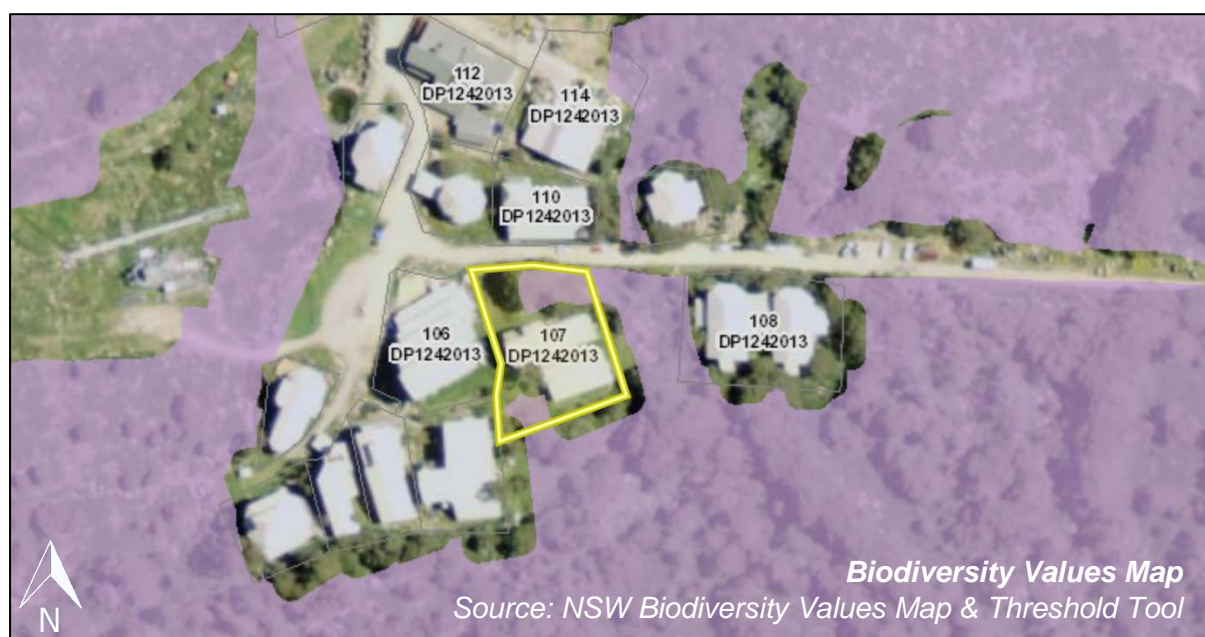


FIGURE 7 BIODIVERSITY VALUES MAP

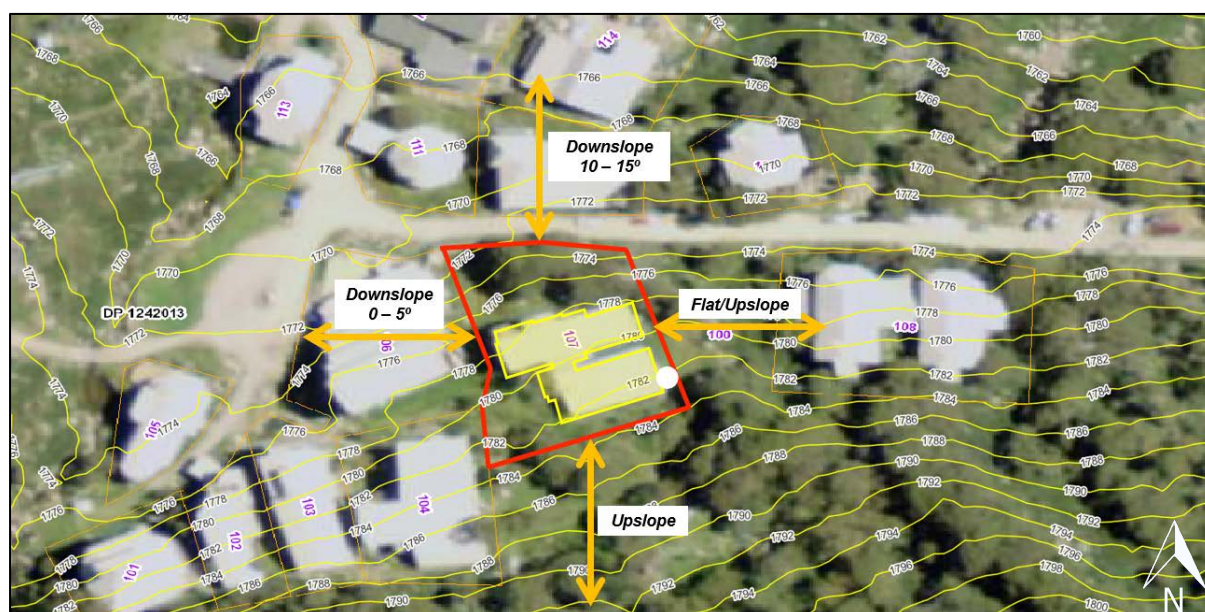
3. SITE DESCRIPTION

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

The slopes that would most significantly influence fire behaviour was determined to be to the east and south.

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 flat/upslope to the South and East through *Open Woodland* and *Woodland* vegetation, a 0 – 5° downslope to the West, and a 10 – 15° downslope to the North through *Managed Land*.

FIGURE 8 SLOPE

3.2. Vegetation formation within 140 m of proposed dwelling

Charlotte Pass is comprised of *Woodland*, *Alpine Complex* and *Managed Land* at the base of the valley. Within 140m of the site, the area is a combination of *Woodland*, *Alpine Complex* and *Managed Land* vegetation.

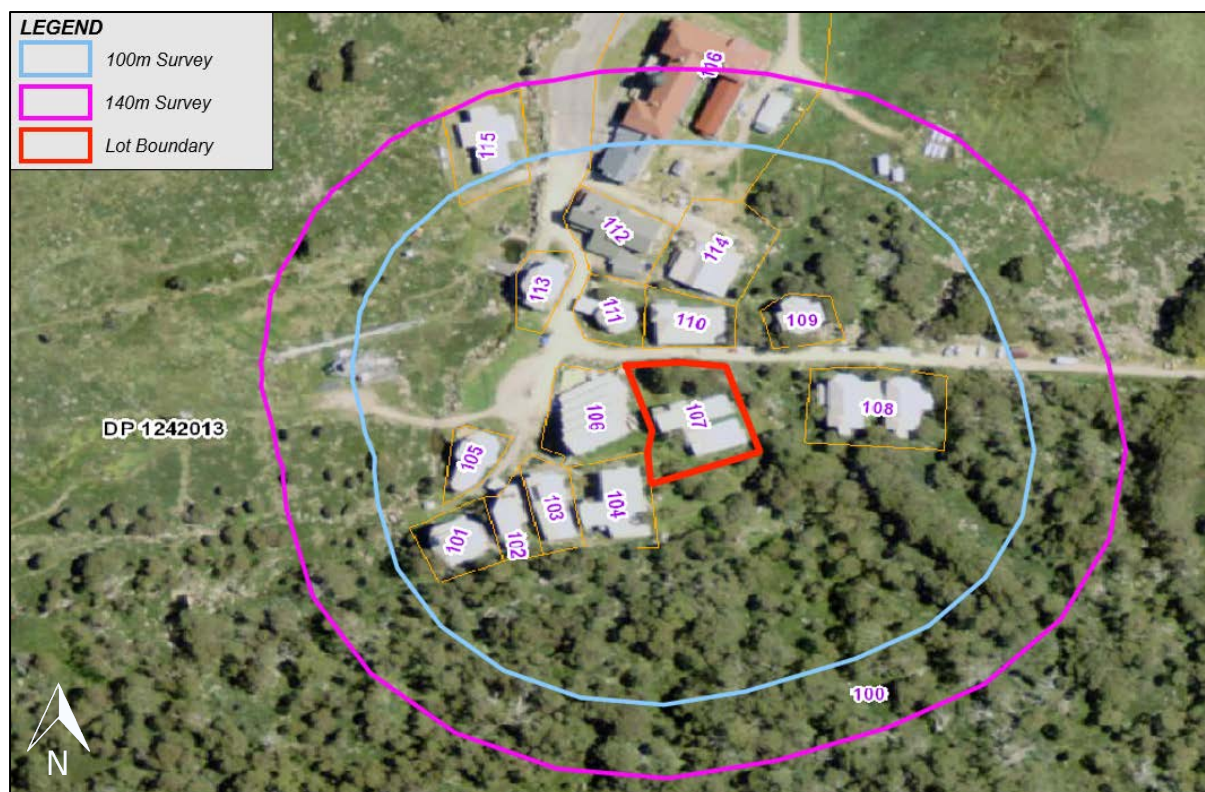
As seen in Figure 7, within 140m of 4 Spencers Creek Road, Charlotte Pass there are three types of vegetations:

- Sub-alpine Shrub-Grass Woodland
- Alpine Wet Herbfield
- Managed Land

Areas of Sub-alpine Shrub-Grass Woodland and Alpine Wet Herbfield to the North and West are dominated by managed land. Managed land does not require an APZ, however, in order to enhance the bushfire protection of the lodge, the entire lot has been allocated as an IPA.

The land located within 100m East of the lodge consist of both *Woodland* and *Managed Land*. Pygmy Possum lodge is located approximately 20m from SASC lodge, the site is maintained as an IPA, due to majority of the land located to the East being *Managed Land*, the vegetation is consistent with *Open Woodland*.

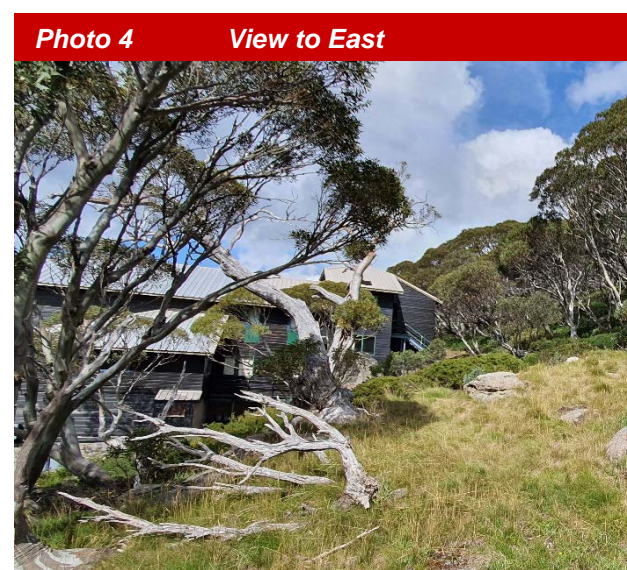
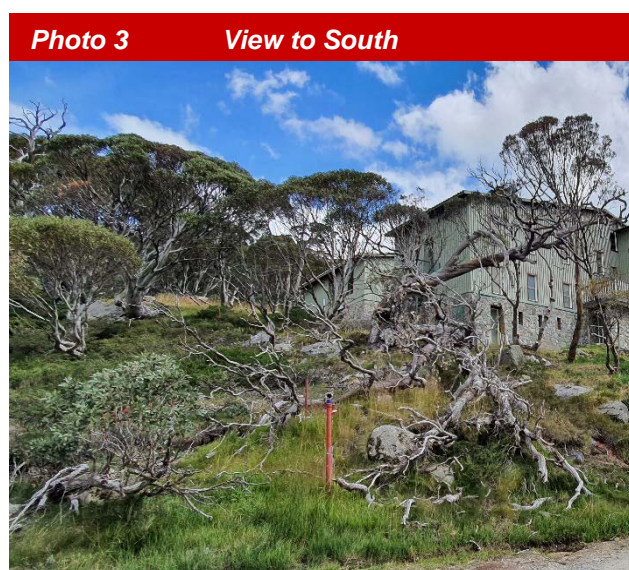
To the South, the areas of Sub-alpine Shrub-Grass Woodland are dominated by denser vegetation comprised of eucalypt species approximately ranging from 10m to 30m in height, as well as a diverse ground cover of grasses and herbs with sparsely distributed shrubs. Being a type of sub-alpine woodland, and denser unmanaged land, 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.



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

TABLE 2 PREDOMINATE VEGETATION CLASSIFICATION

	<i>Vegetation Formation</i>	<i>Effective Slope</i>	<i>APZ Proposed</i>	<i>Photo</i>
North	Managed Land	Downslope 10 – 15°	14.5 m (Entire lot to be managed as IPA)	1
East	Open Woodland	Upslope	5 m (Entire lot to be managed as IPA)	2
South	Forest	Upslope	5 m (Entire lot to be managed as IPA)	3
West	Managed Land	Downslope 5 – 10°	3 m (Entire lot to be managed as IPA)	4



4.0 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 and external alterations and repairs under element A. To complete this assessment, we will evaluate the four triggers and demonstrate that the proposed asset protection zone and works 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 0.19 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 and is 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 and works are 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 and works will not be within an area of outstanding biodiversity values and hence not trigger the BOS.

4.1.5 BOS Conclusion

As a result, you can see that the minimal clearing for the proposed asset protection zone and works not within BVM mapped areas show that the development will not trigger the biodiversity offset scheme. Therefore, a biodiversity assessment report by a certified biodiversity assessor is not necessary.

4. 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 *Managed Land, Open Woodland and Woodland*. *Woodland and Open Woodland* vegetation can be managed as an Inner Protection Area (IPA). The IPA is critical for providing a defensible space and managing heat intensities at the building surface.

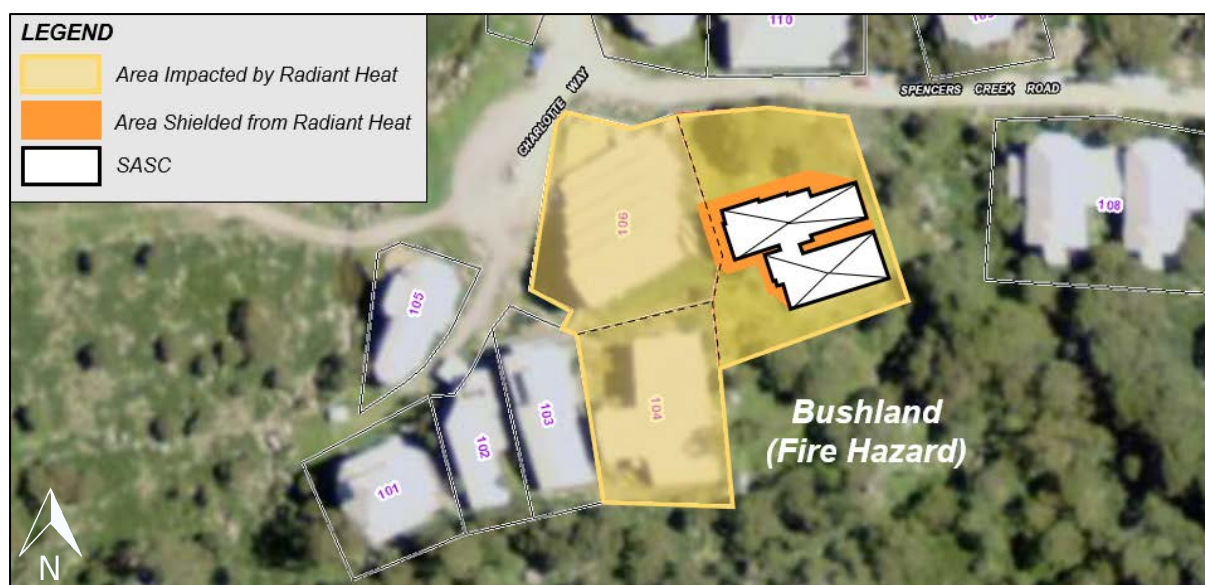
The IPA should provide a tree canopy cover less than 15% and any tree canopies must be located greater than 2 metre from any part of the proposed lodge roofline. Garden beds of flammable shrubs should not be located under trees and should be no greater than 10m from an exposed window or door. Trees should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

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

TABLE 3 APZ AND BAL DETERMINATION

	NORTH	EAST	SOUTH	WEST
Gradient	Downslope 10 – 15°	Flat/Upslope	Upslope	Downslope 0 – 5°
Vegetation	Managed Land	Open Woodland	Woodland	Managed Land
Proposed distance to be provided between edge of building and vegetation	14.5 m Entire Lot to be Managed as IPA	5 m Entire Lot to be Managed as IPA	5 m Entire Lot to be Managed as IPA	37 m Entire Lot to be Managed as IPA
APZ required by PBP 2019 under Table A1.12.7	6 -<8 m	<6 m	<11 m	5 -<6 m
BAL Proposed	BAL 40	BAL FZ	BAL FZ	BAL 40

The land to the North and West of the subject allotment is comprised of Managed Land. The distance between the Western side of the building to the edge of the managed land is **37m** and the distance between the Northern side of the building to the edge of the managed land is **23m**. The Northern and Western elevations are shielded from direct radiant heat arising from bushfire attack (from the South-East), this allows the construction requirements for these elevations to be reduced to the next lower BAL (BAL 40), as outlined in *A1.8 Shielding* in the PBP 2019. Please refer to *Appendix II* for A1.8 Shielding Figures.



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 any new works must meet the requirements of BAL 40 on the North and West elevations and BAL FZ on the South and East elevations

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.

- 4 Spencers Creek 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

Charlotte Pass is serviced by reticulated water. A hydrant system is located along 4 Spencers Creek 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.

5. 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 a building or the shed. Garden beds of flammable shrubs are not to be located under trees and should be no 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
The intent may be achieved where:		
<ul style="list-style-type: none"> provide an appropriate defensible space 	<input checked="" type="checkbox"/>	See Table 3 for APZ distances.
<ul style="list-style-type: none"> site the building in a location which ensures appropriate separation from the hazard to minimise potential for material ignition 	<input checked="" type="checkbox"/>	No change to existing building location. See Table 3 for APZ distances.
<ul style="list-style-type: none"> provide a better bush fire protection outcome for existing buildings 	<input checked="" type="checkbox"/>	Proposed alterations and repair works will provide a better bushfire protection outcome for the building and its occupants.
<ul style="list-style-type: none"> 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); 	<input checked="" type="checkbox"/>	No new buildings proposed as part of this application.
<ul style="list-style-type: none"> ensure there is no increase in bush fire management and maintenance responsibility on adjoining landowners without their written confirmation 	<input checked="" type="checkbox"/>	An APZ plan is proposed to be approved by OEH and adjoining leaseholders for the establishment of a defensible space.
<ul style="list-style-type: none"> ensure building design and construction enhances the chances of occupant and building survival 	<input checked="" type="checkbox"/>	Proposed alterations and repair works will provide a better bushfire protection outcome for the building and its occupants.
<ul style="list-style-type: none"> provide for safe emergency evacuation procedures including capacity of existing infrastructure (such as roads) 	<input checked="" type="checkbox"/>	<p>Access to the lodge is provided via Spencers Creek Road which is an all-weather two-wheel drive access road.</p> <p>Emergency Evacuation plan will be provided in accordance with Charlotte Pass Snow Resort evacuation management plan. An individual evacuation plan will be prepared as described in section 4.4. of this report.</p>

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

Performance Criteria	Complies	Acceptable solutions
The intent may be achieved where:		
<ul style="list-style-type: none"> provide an appropriate defensible space 	<input checked="" type="checkbox"/>	See Table 3 for APZ distances.
<ul style="list-style-type: none"> provide a better bush fire protection outcome for existing structures (e.g. via ember protection measures) 	<input checked="" type="checkbox"/>	No change to existing building location. Proposal for the establishment of an APZ and external alterations and repairs. The proposed alterations and repair works will provide a better bushfire protection outcome for the building and its occupants.
<ul style="list-style-type: none"> ensure new building work complies with the construction standards set out in AS 3959; 		Proposed works to comply with the requirements of AS 3959.
<ul style="list-style-type: none"> to ensure ongoing management and maintenance responsibilities are in place where APZs are proposed outside of the sub lease or leasehold area 		An APZ plan is proposed to be approved by OEH and adjoining leaseholders for the establishment of a defensible space.
<ul style="list-style-type: none"> written consent from the land managers is provided for all proposed works outside of the sub lease or leasehold area 	<input checked="" type="checkbox"/>	An APZ plan is proposed to be approved by OEH and adjoining leaseholders for the establishment of a defensible space.
<ul style="list-style-type: none"> 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 	<input checked="" type="checkbox"/>	An APZ plan is proposed to be approved by OEH and adjoining leaseholders for the establishment of a defensible space.
<ul style="list-style-type: none"> ensure building design and construction standards enhance the chances of occupant and building survival; 	<input checked="" type="checkbox"/>	No change to existing building location. Proposal for the establishment of an APZ and external alterations and repairs. The proposed alterations and repair works will provide a better bushfire protection outcome for the building and its occupants.
<ul style="list-style-type: none"> provide safe emergency evacuation procedures. Any additional construction requirements should be commensurate with the following: <ul style="list-style-type: none"> the scope of the proposed works, including any increase in size and footprint of the building any additional capacity for the accommodation of guests and/or staff on site the cost associated with the proposed upgrade of any building. 	<input checked="" type="checkbox"/>	<p>Access to the lodge is provided via Spencers Creek Road which is an all-weather two-wheel drive access road.</p> <p>Emergency Evacuation plan will be provided in accordance with Charlotte Pass Snow 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>

9. CONCLUSION

Pending the satisfaction of recommendations outlined in this report, the level of bushfire hazard risk identified in relation to the subject land and the proposed alterations and repair work is not considered to be such that the proposal should be denied due to bushfire considerations.

The proposed external alterations and repairs meet the requirements of section 6.5 - *Minor Development in SFPP Facilities* of the PBP 2019 and are classified as *minor non-structural building alterations (external)*. The development types included in section 6.5 of the PBP 2019 do not have any influence on potential bushfire impacts and the bush fire protection of the building. For this reason, the proposed alterations and repair works are not required to comply with the BAL outlined in Table 3.

It is recommended that all **future development** in the proposed building envelope meet the below requirements:

- **BAL 40 on the North and West elevations and BAL FZ on the South and East elevations.**

This proposal meets a “deemed to satisfy” outcome for Bushfire Protection.

This report does not find that the proposal should be rejected due to bushfire considerations provided the recommendations are undertaken as proposed.



Katy Murphy

Town Planner

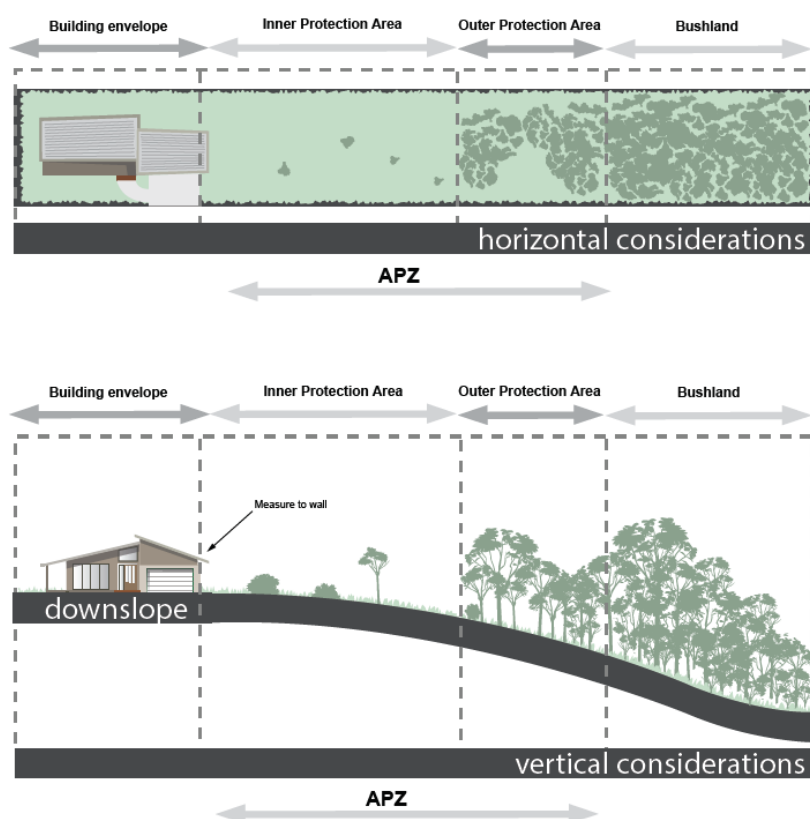
22 February 2022

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.



APPENDIX II A1.8 SHIELDING PBP 2019

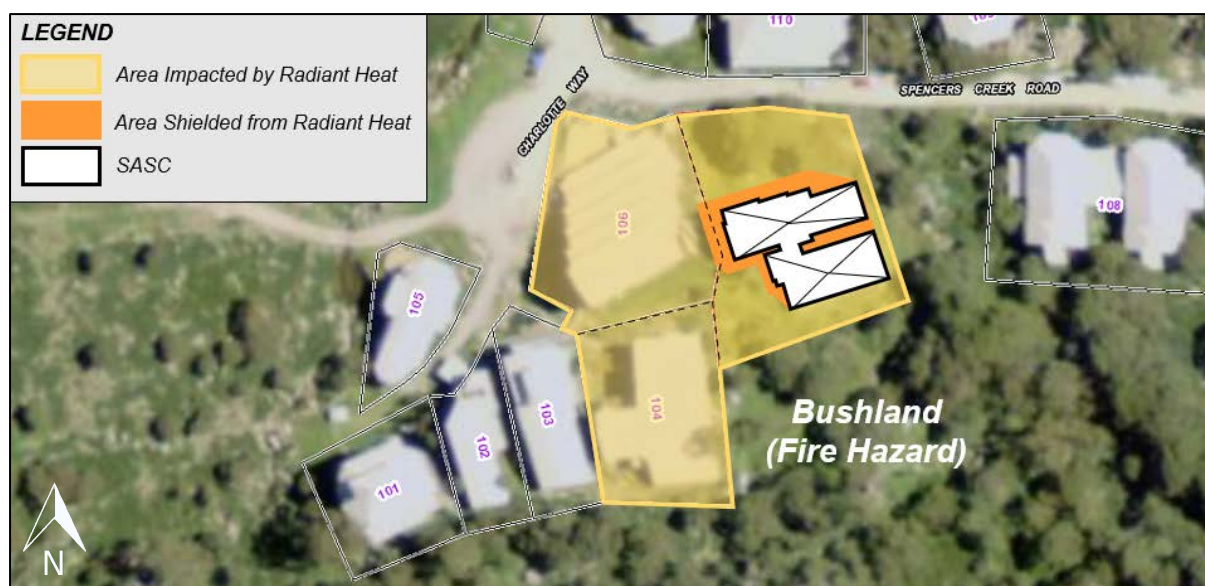


Figure A1.8a

Radiant heat impact and shielding.

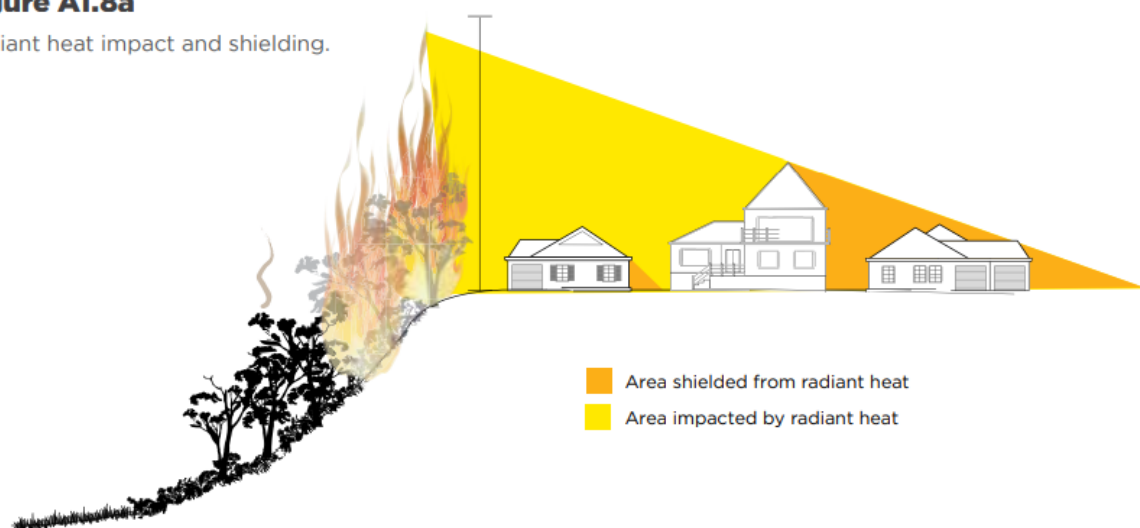


Figure A1.8b

Plan view of radiant heat impact and shielding.

