

BUSHFIRE HAZARD ASSESSMENT REPORT



REPAIR AND REPLACEMENT WORKS TO EXISTING SKI LODGE PYGMY POSSUM LODGE 8 SPENCERS CREEK ROAD, CHARLOTTE PASS KOSCIUSZKO NATIONAL PARK LOT 108 DP 1242013

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REPORT NO: 21150
REVISION: 02
PREPARED FOR: ELOUERA SKI CLUB C/- JON BARBER
PREPARED BY: ACCENT TOWN PLANNING

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- 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

BUSHFIRE HAZARD ASSESSMENT REPORT

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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 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 seeking the approval for repair and replacement work including the recladding of an existing tourist accommodation lodge, known as Pygmy Possum Lodge, as well as associated works. The existing ski lodge is located at Lot 108 DP1242013, 8 Spencers Creek Road, Charlotte Pass NSW 2624.

The following is a list of the proposed external repair and replacement work to Pygmy Possum Lodge:

- Removal of the existing deteriorated timber cladding and replacement with colourbond steel cladding.
- Replacement of all external front of lodge balustrades to meet the BCA 1000mm height and 150mm lower rail standards.
- Re-establishing the west and east wing rear fire exits.
- Construction of a 1m wide path from the rear fire exits to the front of the property
- Removal of fire stairs and closing in of doorway from current fire exit on level 3

It is important to note that this development is not proposing to increase the density or capacity of the lodge, the proposed works will not increase the size of the building footprint and the proposed external repair and replacement works will provide an improved bushfire outcome for the existing building.

It is proposed that ember protection upgrades will be undertaken to the existing lodge, in order to provide a better bushfire protection outcome for the building and its occupants. Please see Appendix II for ember protection upgrade list.

The land is zoned *C1 National Parks and Nature Reserves* 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 Bushfire Safety Authority (BFSa) from the RFS under section 100B of the RF Act.

It is recommended that the proposed works meet the following requirements:

- ***The external repair and replacements work will need to 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 *Sub-Alpine Shrub-Grass Woodland* vegetation.
- The entire allotment is to be maintained as an Inner Protection Area.
- Clearing will not exceed the clearing threshold permissible above which the Biodiversity

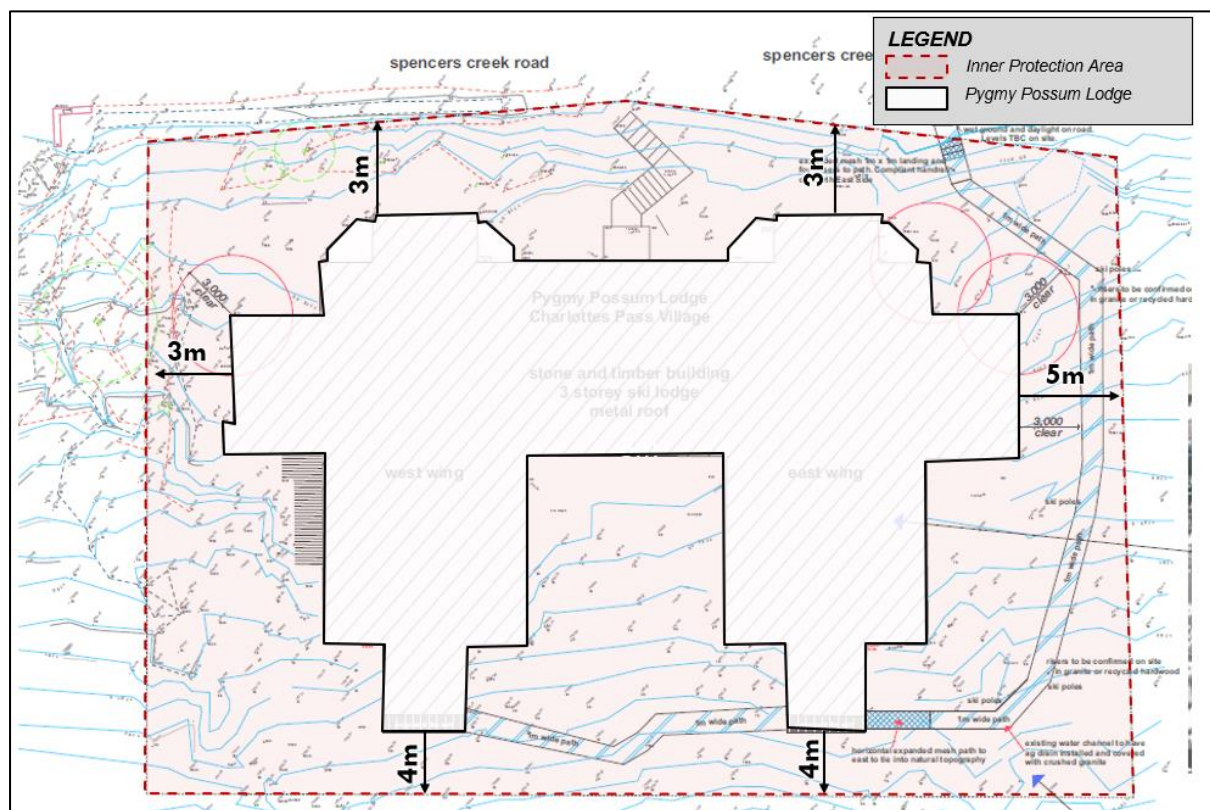
Assessment Method (BAM) and offsets scheme to apply.

- 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.
- Charlotte Pass is serviced by reticulated water and hydrant system with nearest hydrants located on Spencers Creek Road.

ASSET PROTECTION ZONES

An updated APZ is proposed to be established in conjunction with NPWS to create an appropriate defensible space adjoining the building permit. All of the works proposed will consist of repair and replacement works to enhance the bushfire protection and overall condition of the building. Any new work not identified as repairs and maintenance to be constructed to achieve **BAL FZ**.

Tree branches will be trimmed within the APZ to reduce the attached canopy from adjoining vegetation and overhanging the building. The owners/managers of the lodge will work closely with NPWS to arrange any removal of tree limbs and other vegetation.



Asset protection zones are the most strategically valuable defence against radiant heat and flame, and to lesser extent embers. The entire allotment shall be maintained as an Inner Protection Area in perpetuity.

CONSTRUCTION

The proposed repair works will provide an improved bushfire protection outcome for the existing lodge by providing improved fire-resistant materials. The proposed repair and replacement works are to replace deteriorated timber cladding with new colorbond metal sheet cladding, replace deteriorated timber balustrades with steel balustrades and the re-establishment of fire-exits from the East and West wings of the lodge to ensure safe exit for occupants in the event of a fire.

All **new works** are to meet **BAL FZ on all 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*.

All of the proposed upgrades improve the bushfire protection of the building, and therefore provide a better bushfire protection outcome for the building and its occupants. For this reason, the proposed repair works are not required to meet the BAL level for **new works** as described above.

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.

Charlottes Pass is serviced by reticulated water. A hydrant system is located along Spencers Creek 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).

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

- **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.

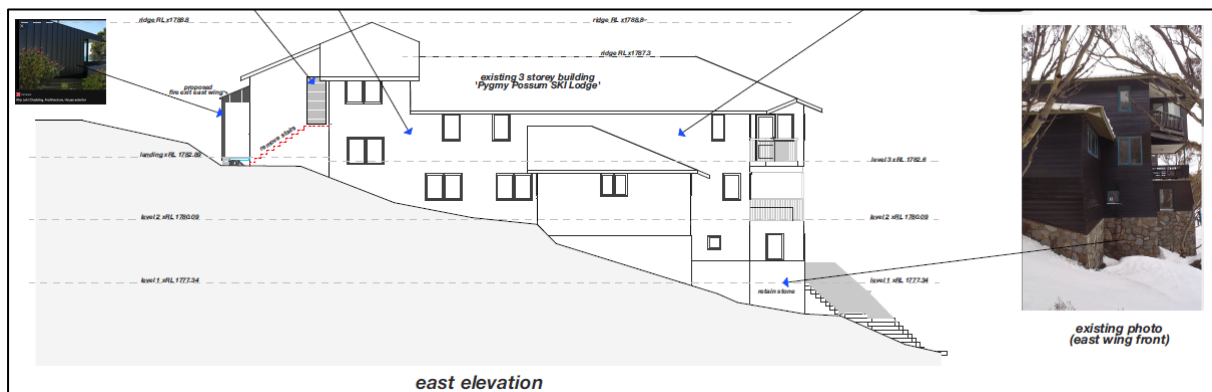
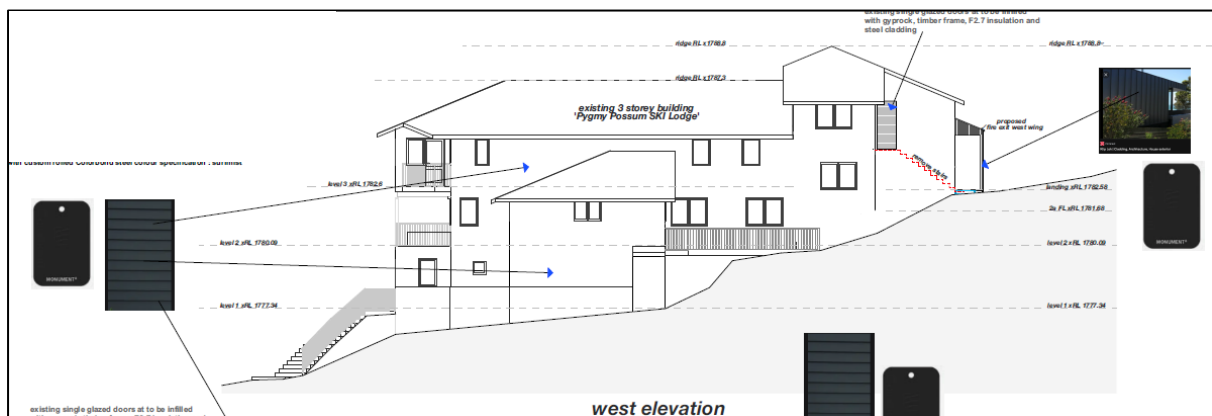
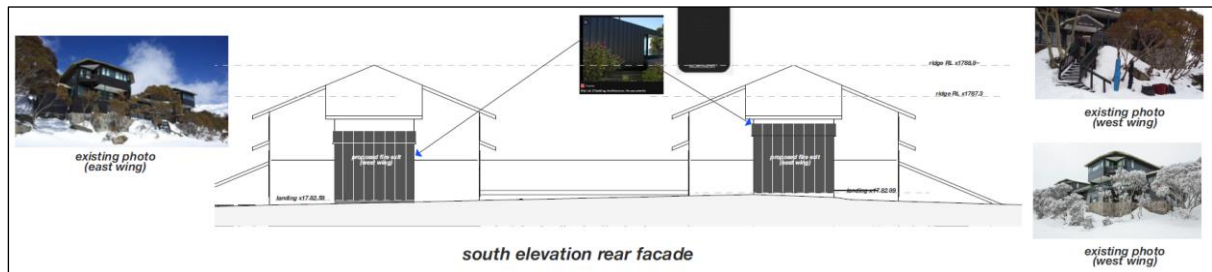
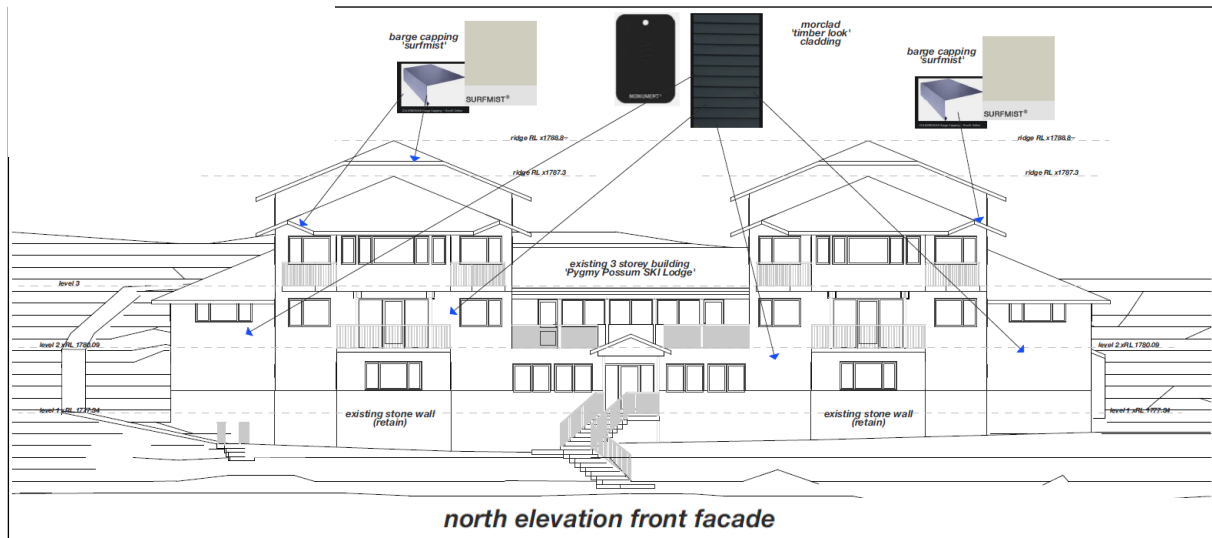
FIGURE 1 SITE LOCATION



FIGURE 2 BROAD SCALE AERIAL VIEW OF THE SUBJECT SITE



ELEVATION PLANS



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 “ <i>Vegetation Category 1</i> ”.
LEP ZONE MAP	5	The subject lot is zoned as “ <i>C1 – National Parks and Nature Reserves</i> ”.
VEGETATION MAPPING	6	<p>The vegetation surrounding the existing lodge has been mapped as:</p> <ul style="list-style-type: none"> ➤ <i>Sub-alpine Shrub-Grass Woodland</i> ➤ <i>Alpine Wet Herbfield</i> ➤ <i>Short Alpine Herbfield</i> <p>According to Keith (2004) this formation is classified as both “Woodland” and “Forest” depending on the density of the vegetation.</p>
BIODIVERSITY VALUES MAP	7	Allotment has areas identified with high biodiversity values. However, no building works are proposed within these areas and hence does not trigger the Biodiversity Offsets Scheme.

FIGURE 4 BUSHFIRE PRONE MAP



FIGURE 5 LEP MAP



FIGURE 6 VEGETATION MAPPING

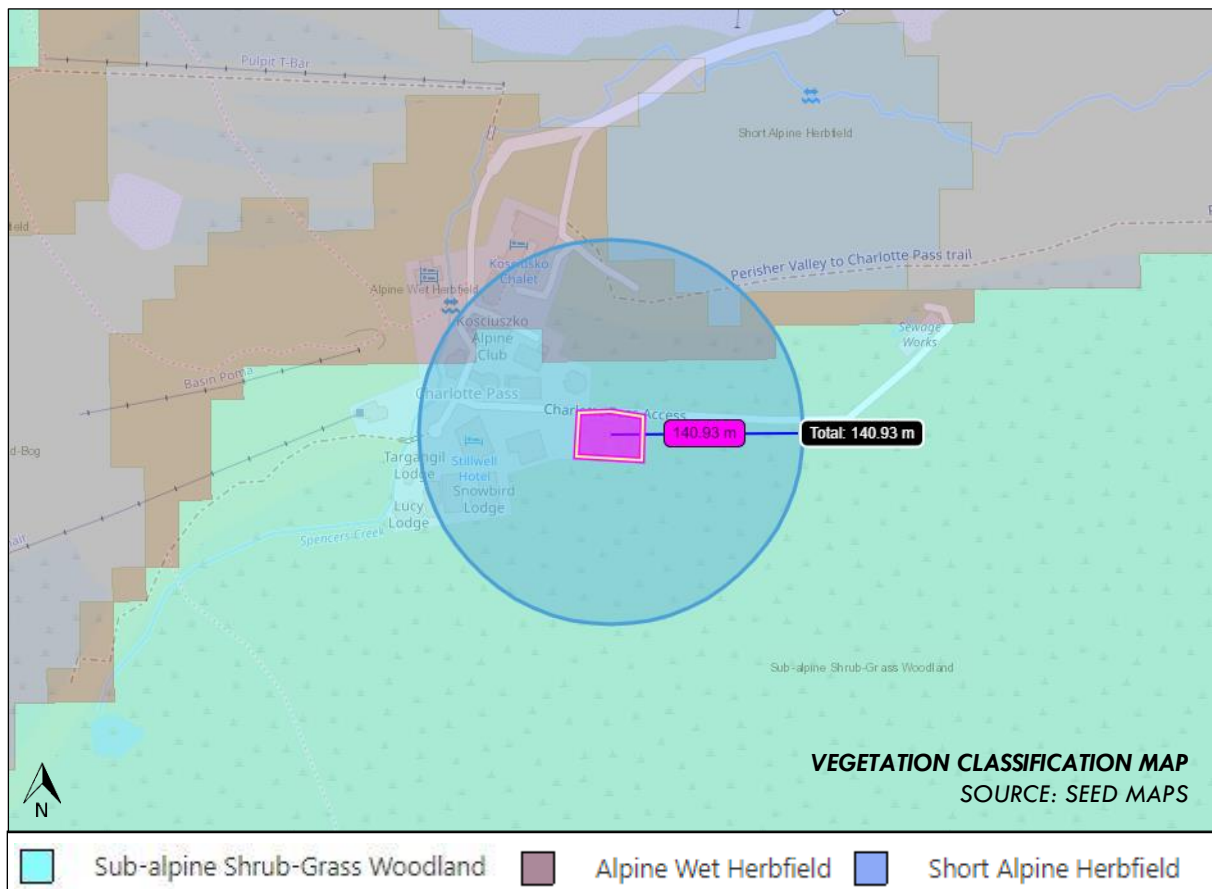
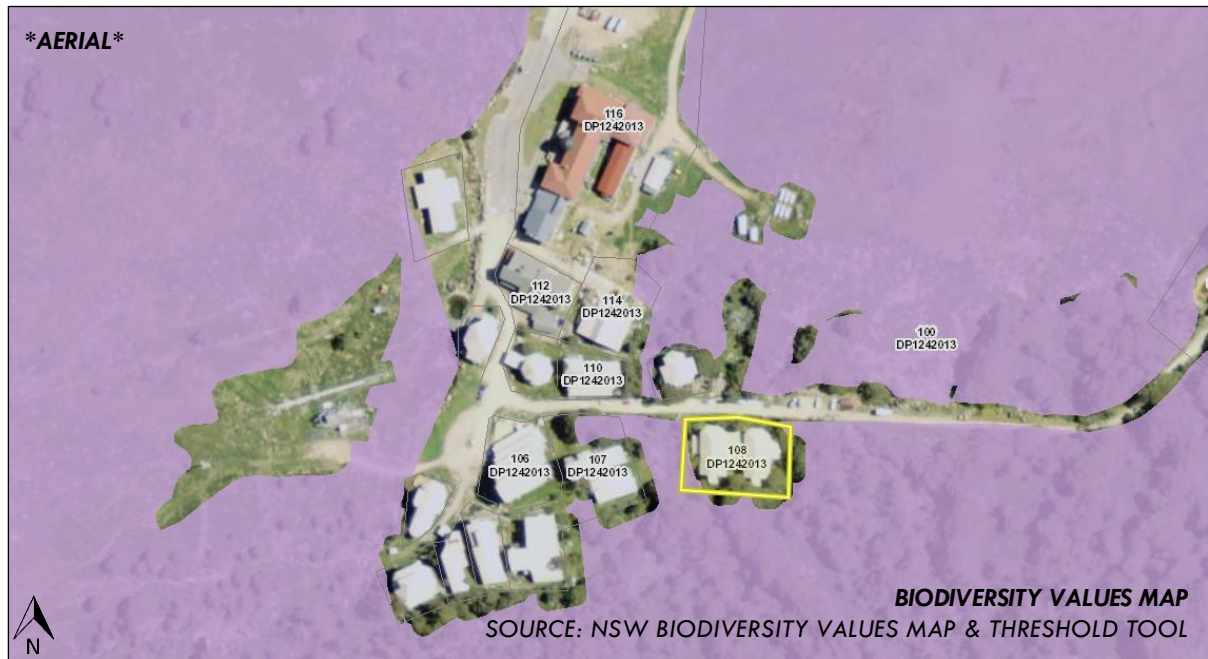


FIGURE 7 BIODIVERSITY VALUES MAP



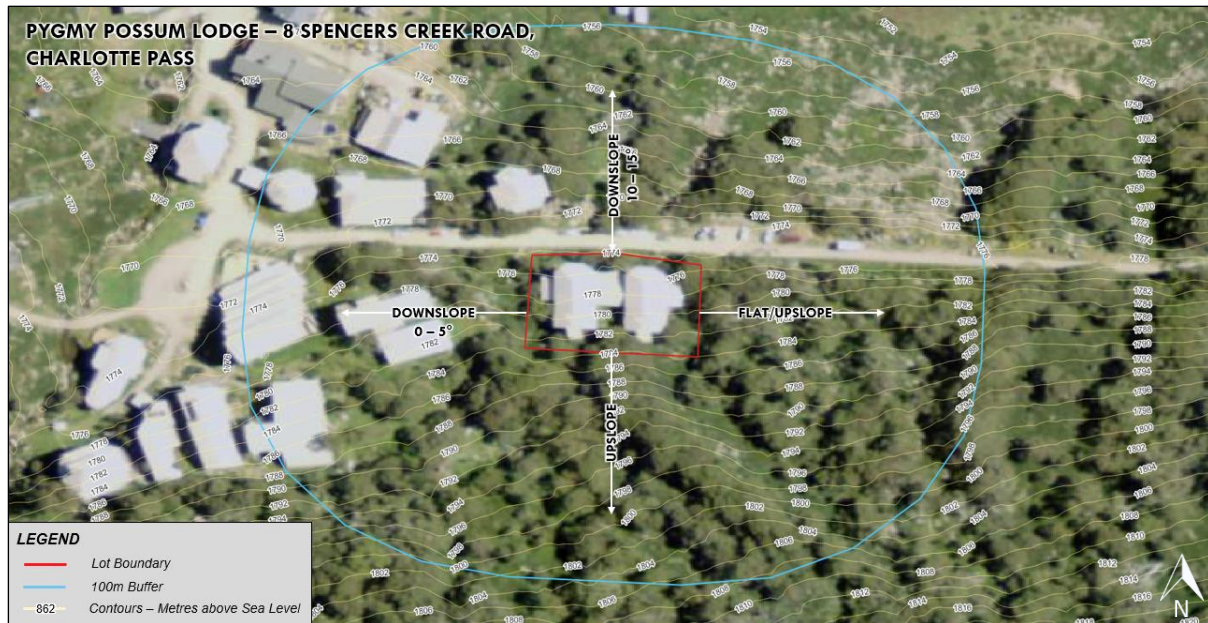
3. SITE DESCRIPTION

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 over a distance of 100m out from the existing 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 an upwards slope to the south and east through *Sub-Alpine Shrub-Grass Woodland*, a 10 – 15° to the north under a mixture of *Managed Land* and *Alpine Wet Herbfield* and a 0 – 5° to the west through *Managed Land* and *Sub-Alpine Shrub-Grass Woodland*

FIGURE 8 SLOPE AND PROPOSED APZ



3.2. VEGETATION FORMATION WITHIN 140 M OF THE EXISTING LODGE

Charlotte Pass is comprised of Woodland, Herbfield, and Managed Land at the base of the valley. The land surrounding Pygmy Possum Lodge is consistent with the vegetation types within the Charlotte Pass Valley.

As seen in Figure 6, within 140m of 8 Spencers Creek Road, Charlotte Pass there are four types of vegetations:

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

The predominant vegetation within the 140m is *Sub-alpine Shrub-Grass Woodland*, which is comparable to the *Woodland* and *Forest* classification of *Keith* dependent on the density of the vegetation.

The vegetation to the North is *Sub-Alpine Shrub-Grass Woodland* becoming *Alpine Wet Herbfield* after approximately 50m. It is dominated by an open to sparse layer of eucalypts with their crowns rarely touching comparable to *Woodland* classification of *Keith*. It is also comprised of a diverse ground cover of grasses and herbs with sparsely distributed shrubs. The land located to the West of the lodge is primarily *Managed Land*, however, there is an area of vegetation between Pygmy Possum and Southern Alps Ski Club that includes an open to sparse layer of eucalypts with their crowns rarely touching and a diverse ground cover of grasses and herbs with sparsely distributed

shrubs. This area can be classified as *Woodland*.

Areas identified as *Sub-alpine Shrub-Grass Woodland* to the south and East of the Lodge are dominated by denser vegetation comprised of eucalypt species approximately ranging from 10m to 30m in height with various native shrubs below. 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.

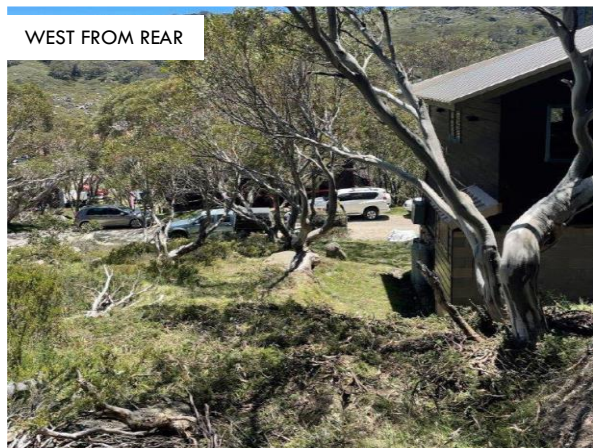
Most of the remaining area is comprised of *Managed Land* and is primarily cleared and maintained for ski runs during winter and each allotment is maintained as an Inner Protection Area.

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

TABLE 2 PREDOMINATE VEGETATION CLASSIFICATION

	VEGETATION FORMATION	EFFECTIVE SLOPE	APZ PROPOSED	PHOTO
NORTH	Woodland	Downslope 10 – 15°	3m	1
EAST	Woodland	Upslope	5m	2
SOUTH	Woodland	Upslope	4m	3
WEST	Woodland	Downslope 0 – 5°	3m	4

SITE PHOTOS



BUSHFIRE HAZARD ASSESSMENT FOR 8 SPENCERS CREEK ROAD CHARLOTTE PASS NSW



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 repair and replacement work under element A. To complete this assessment, we will evaluate two of the four triggers and demonstrate that the proposed 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 subject allotment is approximately 1630 sqm, the existing lodge has an approximate footprint of 620 sqm leaving approximately 1010 sqm or 0.101 ha of landscaped area within the allotment. Minimal vegetation removal and pruning will be required in order to establish the allotment as an Inner Protection Area and will be far less clearing than the permissible 0.25 ha. Selective clearing of vegetation for IPA is to be undertaken under the guidance of NPWS. Therefore, any required vegetation removal within the allotment is permissible and no offsets for the proposed works 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 subject lot does contain a small area with high biodiversity values surrounding the existing lodge. However, no building works are proposed within these areas and hence does not trigger the Biodiversity Offsets Scheme.

4.1.3 BOS CONCLUSION

After our assessment of these triggers it is evident that the biodiversity offsets scheme will not be triggered by the repair and maintenance works. Upon assessment by the consent authority (ie Department of Planning) further assessment by a suitably qualified consultant may be required if they deem the other two triggers relevant.

5.0 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 works using the vegetation and slope data identified. An FFDI of 50 was used for this location. The entire allotment is to be maintained as an Inner Protection Area.

The vegetation classification for bushfire purposes for this site is *Woodland* towards the North and West and *Forest* to the East and South elevations. *Woodland* vegetation can be managed as an Inner Protection Area. 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°	Upslope	Upslope	Downslope 0 – 5°
VEGETATION	Managed Land (Woodland)	Forest	Forest	Managed Land (Woodland)
PROPOSED DISTANCE TO BE PROVIDED BETWEEN EDGE OF BUILDING AND VEGETATION	3m Entire Lot to be Managed as IPA	5m Entire Lot to be Managed as IPA	4m Entire Lot to be Managed as IPA	3m Entire Lot to be Managed as IPA
APZ REQUIRED BY PBP 2019 FOR BAL 40 UNDER TABLE A1.12.7	<21 m	<11 m	<11 m	<17 m
BAL PROPOSED	BAL FZ for New Construction.	BAL FZ for New Construction.	BAL FZ for New Construction.	BAL FZ for New Construction.

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 works identified as **new work** will comply with **BAL FZ** on all elevations. The proposed repair and replacement works will provide an improved bushfire protection outcome for the existing lodge by providing improved fire-resistant materials, and by improving the overall condition of the lodge. Ember protection upgrades are also proposed for the existing lodge, in order to further enhance the bushfire safety for the building and its occupants. For this reason, the proposed repair works are not required to meet the BAL level for **new works** as described above.

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.

- Spencers Creek Road is a public access road, occasionally requiring 4 wheel drive access or snow chains for 2 wheel drive vehicles in winter, and suitable for 2 wheel drive access at all other times. 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.

The access road and turning bay will allow tankers to travel in a forward direction from the allotment.

A new 1m wide path is proposed to connect the rear fire exits to the front of the property. The access between the leasehold area and the road is across NPWS property for approximately 1m across a small dip in the ground. This section of the path has been authorised by NPWS during discussions with the lodge owners.

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 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.

6.0 LANDSCAPING

The entire allotment is to be maintained as an Inner Protection Area per the recommendations outlined within this report and is to be maintained in 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 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
THE INTENT MAY BE ACHIEVED WHERE:		
<ul style="list-style-type: none"> provide an appropriate defensible space 	<input checked="" type="checkbox"/>	The entire allotment is to be managed as an Inner Protection Area. This will provide an appropriate defensible space surrounding the existing lodge.
<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"/>	The entire allotment is to be managed as an Inner Protection Area. This ensures there will be appropriate separation between the lodge and any potential bushfire threat. This will also ensure that the vegetation immediately surrounding the lodge will not promote material ignition.
<ul style="list-style-type: none"> provide a better bush fire protection outcome for existing buildings 	<input checked="" type="checkbox"/>	The proposed repair works will provide an improved bushfire protection outcome for the existing lodge by providing improved fire-resistant materials. Ember protection upgrades are also proposed for the existing lodge, in order to further improve the bushfire safety outcome for the building.
<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); 	N/A	No new buildings proposed.
<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"/>	The proposed works will not increase land management and maintenance responsibility for adjoining landowners.
<ul style="list-style-type: none"> ensure building design and construction enhances the chances of occupant and building survival 	<input checked="" type="checkbox"/>	The proposed repair works will provide an improved bushfire protection outcome for the existing lodge by providing improved fire-resistant materials. Ember protection upgrades are also proposed for the existing lodge, in order to further improve the bushfire safety outcome for the building.
<ul style="list-style-type: none"> provide for safe emergency evacuation procedures including capacity of existing infrastructure (such as roads) 	<input checked="" type="checkbox"/>	Access to the lodge is provided via Spencers Creek Road which is an all-weather two-wheel drive access road. 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
THE INTENT MAY BE ACHIEVED WHERE:		
<ul style="list-style-type: none"> provide an appropriate defensible space 	☑	The entire allotment is to be managed as an Inner Protection Area, providing an appropriate defensible space surrounding the existing lodge.
<ul style="list-style-type: none"> provide a better bush fire protection outcome for existing structures (e.g. via ember protection measures) 	☑	The proposed repair works will provide an improved bushfire protection outcome for the existing lodge by providing improved fire-resistant materials. Ember protection upgrades are also proposed, further improving the bushfire safety 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; 	☑	All works will comply with the requirements outlined in 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 	N/A	No management areas (APZ's & IPA's) are proposed outside of the leasehold area.
<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 	☑	A small section of path is proposed to cross between Spencers Creek Road and the leasehold area over NPWS land, with NPWS authorizing this during discussions with lodge owners.
<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 	N/A	No management areas (APZ's & IPA's) are proposed outside of the leasehold area.
<ul style="list-style-type: none"> ensure building design and construction standards enhance the chances of occupant and building survival; 	☑	The proposed repair works will provide an improved bushfire protection outcome for the existing lodge by providing improved fire-resistant materials which will enhance the bushfire safety 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. 	☑	<p>Access to the lodge is provided via Spencers Creek Road which is an all-weather two-wheel drive access road.</p> <p>No change to the existing emergency evacuation procedures proposed.</p> <p>An individual evacuation plan will be prepared as described in section 4.4 of this report.</p>

8.0 CONCLUSION

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 level of bushfire hazard risk identified in relation to the subject land and the proposed repair and replacement work is not considered to be such that the proposal should be denied due to bushfire considerations.

The proposed external repair and replacement work meets 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 proposed that ember protection upgrades will be undertaken to the existing lodge, in order to provide a better bushfire protection outcome for the building and its occupants. Please see Appendix II for ember protection upgrade list.

It is recommended that the proposed **repair and replacement** works meet the following requirements:

- ***The external repair and replacements work will need to 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).***

It is recommended that any works identified as **new works** in the building envelope meet the below requirements:

- ***BAL FZ on all elevations in accordance with AS 3959.***

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.

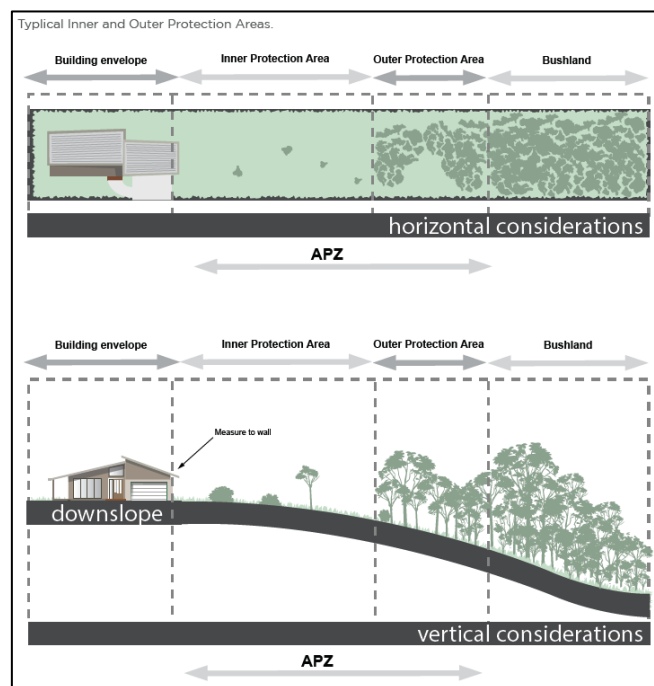
Tammy Stewart
Town Planner

27 October 2023

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).



(Planning for Bushfire Protection 2019)

APPENDIX II EMBER PROTECTION UPGRADES

BUILDING ELEMENT	MINIMAL PROTECTION MEASURES
GENERAL	<p>Seal all gaps (>33mm) around the house (excluding subfloor) with:</p> <ul style="list-style-type: none"> • Appropriate joining strips. • Flexible silicone-based sealant; or • Mesh with a maximum aperture of 2mm, made from corrosion resistant steel, bronze, or aluminium.
WALLS	Install sarking with a flammability index of not more than 5 behind weatherboards or other external cladding when they are being replaced for maintenance or other reasons.
SUBFLOOR	Removal of combustible materials and keeping areas clear and accessible.
DOORS	Install weather strips, draught excluders, or draught seals at the base of side-hung doors.
VENTS & WEEPHOLES	Seal vents and weepholes in external walls with mesh (with an aperture size of 2mm) or corrosion resistant steel, bronze or aluminium.
ROOFS	<p>Seal around roofing and roof penetrations with a non-combustible material.</p> <p>Install sarking with a flammability index of not more than 5 beneath existing roofing when it is being replaced for maintenance or other reasons.</p> <p>If installed, gutter and valley leaf guards shall be non-combustible.</p>
WINDOWS	Install mesh with a maximum aperture of 2mm, made from corrosion resistant steel, bronze or aluminium to all external doors and openable windows.