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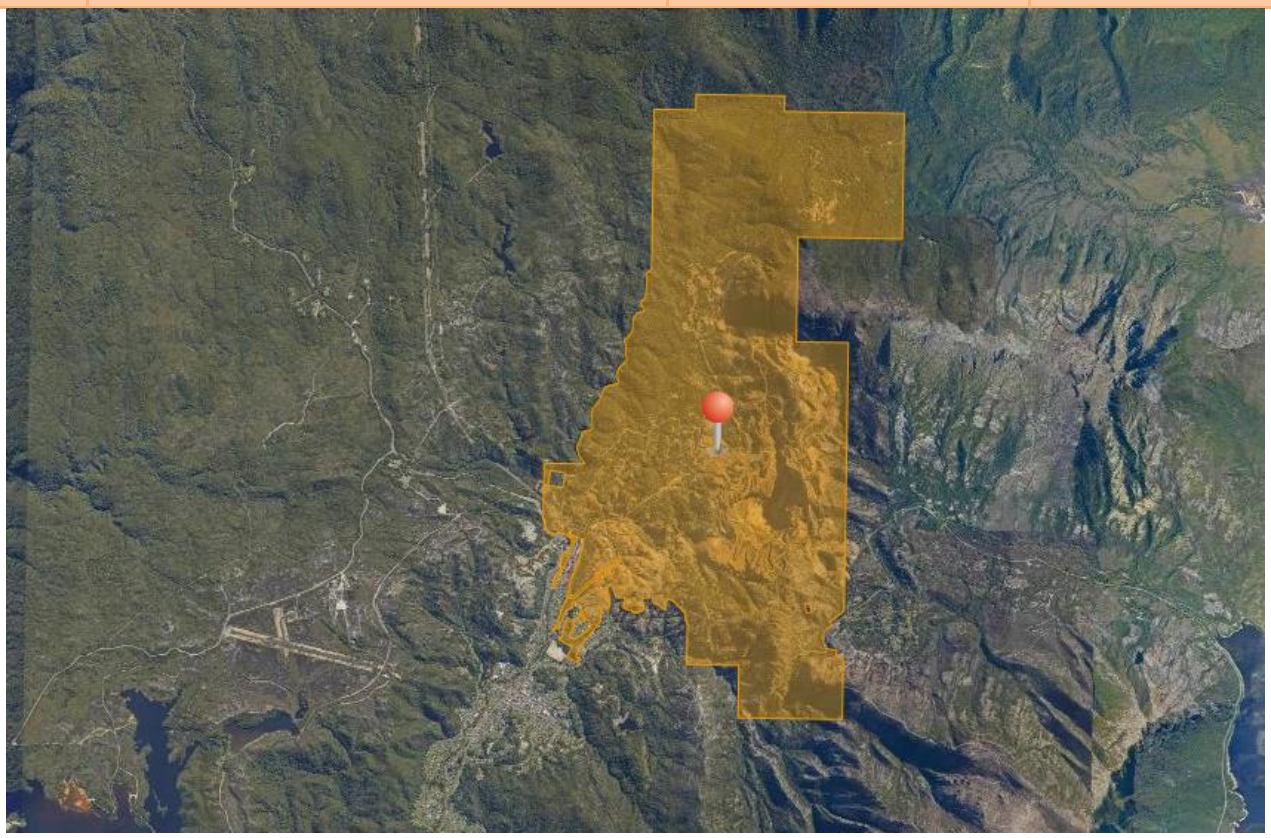
BUSHFIRE ASSESSMENT

Client	Sibanye Stillwater Australia	Volume/Folio Number	
Site	Penghana Road, Queenstown, Tas, 7467	PID	7772249
Report By	Jason Van Zetten	Accreditation	BFP113
Date	17/09/2025	Job Reference	8243



Proposal

The proposal is for a new processing plant associated with the existing mining operation known as the Mount Lyell Copper Mine/Sibanye Stillwater located on Penghana Road, Queenstown.

This BAL assessment applies only to the area surrounding the new processing plant which is to the south of the existing core shed and to the west of the existing Prince Lyell head shaft. This processing area is central on the site, which is around 5km north to south and 1-3km wide east to west. Whilst this report applies to this building only, action and emergency planning for bushfire will need to cover the entire area of activity on the site.

From the description of the proposed works, it is believed that it fits into the highlighted requirements set out below in Table 4 of the Directors Determination.

Table 4 – requirements for Hazard Management Area – Directors Determination – Bushfire Hazard Areas version 1.2
(Note, this table does not depict the BAL level for this site, however, does provide clarification of the definition set out in the building act in relation to application of when the lot was created.)

	Element	Requirement
A	New buildings on lots provided with a BAL at the time of subdivision.	A new building must: (a) be provided with a HMA no smaller than the required separation distances required for BAL-19, except where a higher BAL was approved as part of the subdivision bushfire hazard management plan; and (b) have a HMA established in accordance with a certified bushfire hazard management plan.
B	New buildings on lots not provided with a BAL at the time of subdivision.	A new building must: (a) be provided with a HMA no smaller than the required separation distances required for BAL-29; and (b) have a HMA established in accordance with a certified bushfire hazard management plan.
C	Alterations or additions to buildings.	An alteration or addition to a building must: (a) be located on the lot so as to be provided with a HMA which: (i) has the separation distances required for the BAL assessed for the construction of the existing building; or (ii) in the case of a building without an existing BAL assessment, is no smaller than the separation distances required for BAL-29; and (b) have a HMA established in accordance with a certified bushfire hazard management plan.
D	New buildings and additions and alterations to buildings classified as an accommodation building Class 1b, Class 2, or Class 3, other than communal residence for persons with a disability, a respite centre or a residential aged care facility or similar.	A new building or an alteration or addition must: (a) be located on the lot so as to be provided with HMAs no smaller than the separation distances required for BAL-12.5; and (b) have a HMA established in accordance with a certified bushfire hazard management plan.
E	New buildings and additions and alterations to existing buildings classified as vulnerable use as defined in the relevant planning scheme.	A new building or an addition or alteration including change of use must: (a) be located on the lot so as to be provided with HMAs no smaller than the separation distances required for BAL-12.5; and (b) have a HMA established in accordance with a certified bushfire hazard management plan.
F	New buildings or additions and alterations to buildings associated with the use, handling, generation or storage of a hazardous chemical or explosive.	A new building or an alteration or addition, including change of use, for a building associated with the use, handling, generation or storage of a hazardous chemical must: (a) be located on the lot so as to be provided with a HMA no smaller than the required separation distances for the BAL determined in the certified bushfire hazard management plan; and (b) have a HMA established in accordance with a certified bushfire hazard management plan
G	Additional requirements for Certain Class 9 Buildings and associated Class 10a Buildings and decks.	Refer to NCC Vol. 1 – Part G5 (incorporating TAS G5P1 and TAS G5P2) and Specification 43

Site Description

The site is located on the northern side of Queenstown and is flanked by the Lyell Highway at Gormanston to the east and Queenstown to the south.

At the time of inspection, the area in question was in a reasonably managed, serviceable state associated with its existing use.

To the north of the proposed processing plant is a large gravel hardstand area with some larger cuts and fills including some mining buildings, extending to around 90m from the works. Beyond this, areas of scrub extend between mining access roads, other hardstand areas and other buildings associated with the use across steep, undulating embankments for around 400m to a large, well-formed access road. Beyond this, scrub and forest extend across the steep, undulating hillsides for around 3.5km to the lot boundary. Beyond this scrub and forest vegetation extend across over the steep undulating hillsides for around 5-6kms through to Sedgwick Bluff, to the south of Lake Margeret.

To the east of the proposed works, gravel hardstand extends to the existing larger scale mining machinery and buildings. Beyond this, areas of scrub extend up the steep hillside, some cleared areas, some thicker scrub areas through to the ridgeline, around 450m from the works. Areas of scrub and some areas of forest extend across the steep undulating hillsides through to the lot boundary, around 1.3kms with Gormanston beyond this around 2km from the works.

To the south of the proposed works is gravel hardstand including an existing mining conveyor system which extends around 30m through to a large open, cut area with heavy scrub vegetation existing around 90m from the works. Beyond this, a mix of areas of mining operations, previous mining cuts, areas of scrub and forest extend south on the lot through to the Lyell highway, around 1.8km from the works. Scrub vegetation extends as the predominant feature over crown land beyond this to the south through to Mount Owen and Little Owen, around 4.5km from the works.

To the west of the proposed works is gravel hardstand extending across larger hardstand areas with stands of scrub around 70m from the works extending around 150m from the works through to the main road associated with the mine facility. Beyond this, a mix of mining operations and areas of scrub extend across the steep undulating hillsides for around 2km through to the Lyell highway to the north of the Queenstown township. Scrub becomes forest vegetation to the west of the Lyell highway

Water Supply

The mining site itself has a large, high volume reticulated water system in place at present. It is proposed that water hydrants are installed on the building associated with the construction and use. It is recommended hydrants be located on the hardstand area surrounding the building to achieve 120m hose lay all round.

Full static water supply requirements should be read in the Directors Determination – Bushfire Hazard Areas and if an alternative solution is required this may trigger the need for a performance solution to be approved by Tas Fire and CBOS.

Access

Access to the proposed site is via a large, well-formed gravel accessways.

Note, most of these accessways are associated with heavy truck use and well exceed the following requirements.

The following design and construction requirements apply to property access greater than 30m in length or for access for a fire appliance to a firefighting water point as per the Building Act 2016 Directors Determination Bushfire Hazard Areas.:

(a) All-weather construction;
(b) Load capacity of at least 20 tonnes, including for bridges and culverts;
(c) Minimum carriageway width of 4 metres;
(d) Minimum vertical clearance of 4 metres;
(e) Minimum horizontal clearance of 0.5 metres from the edge of the carriageway;
(f) Cross falls of less than 3° (1:20 or 5%);
(g) Dips less than 7° (1:8 or 12.5%) entry and exit angle;
(h) Curves with a minimum inner radius of 10 metres;
(i) Maximum gradient of 15° (1:3.5 or 28%) for sealed roads, and 10° (1:5.5 or 18%) for unsealed roads; and
(j) Terminate with a turning area for fire appliances provided by one of the following: (i) A turning circle with a minimum outer radius of 10 metres; (ii) A property access encircling the building; or (iii) A hammerhead “T” or “Y” turning head 4 metres wide and 8 metres long.

1. Some areas of land within 100m of the site exceed 20 degrees however, these steep embankments are mostly free of vegetation and are deemed low threat to AS3959/2018 2.2.3.2
2. This BAL assessment applies only to the area surrounding the new processing plant which is to the south of the existing core shed and to the west of the existing Prince Lyell head shaft. This processing area is central on the site, which is around 5km north to south and 1-3km wide east to west. Whilst this report applies to this building only, action and emergency planning for bushfire will need to cover the entire area of activity on the site.
3. The key vegetations near the site are predominantly scrub.
4. It is likely the hazard management area will exceed the minimum requirements as set out in the hazard management plan.
5. The access roads associated with the mining works should exceed the construction requirements set out in Directors Determination for Building within Bushfire Prone Areas.

C13.5.2 Hazardous Uses: There are no highly flammable chemicals to be located in or associated with this building. It is not believed that the manifest quantities of fuel exceed WorkSafe standards for this building. A diesel fuel drum of less than 5000L exists around 1km to the south west of the new works at the existing office building. WorkSafe Schedule 12 manifest shows combustible liquid i.e. diesel, does not trigger schedule 12 manifest details until the volume is greater than 10,000 litres. Blasting equipment is generally kept off site and transported directly underground associated with the mine use. When explosives are kept on the site, they are generally kept at a sufficient distance below ground and would not create risk in the event of a bushfire. Other chemicals uses with the production of copper or cleaning of the extracted material are generally not flammable.

Conclusion

As the proposed works are within 100m of 1 hectare or greater of classifiable vegetation and the site is within a bushfire prone mapped area, a BAL assessment is required for the purpose of these works.

After consideration of the location of the new processing plant building, it is deemed a BAL 12.5 classification be adopted where classifiable scrub vegetation exists in all directions between 27-100m. This BAL has been based on upslopes to the north and east and varying downslopes to the west and south to AS3959/2018 2.2.3.2. Therefore, this new processing plant building can adopt a BAL 12.5 classification on implementation on the hazard management plan

On this basis, a BAL 12.5 classification can be adopted for the entire site to AS3059/2018 2.2.3.2 (e) & (f), tables 2.3 and 2.6.

BAL 12.5 to AS3959/2018

It is the responsibility of the accredited architect/designer to provide specific construction details to AS3959/2018 and firefighting water supply and property access requirements on the plans, as per this report for approval in line with the requirements set out in CBOS schedule 1. Water supply and property access details can be copied from this report and hazard management plan without fear of copyright.

Prior to use of the works, a Bushfire Emergency Plan is required to be implemented and approved by TFS in line with TFS templates. Due to the nature and size of the mine and the likelihood that other action and emergency plans are already in place, the BEP should be able to be modified to fit into the Companies existing Emergency and Safety Procedures.

Bushfire Hazard Management Plan

The attached Bushfire Hazard Management Plan must be implemented prior to occupation of the new works.

Failure to meet the requirements of this report may invalidate your insurance policy in the event of a bushfire.

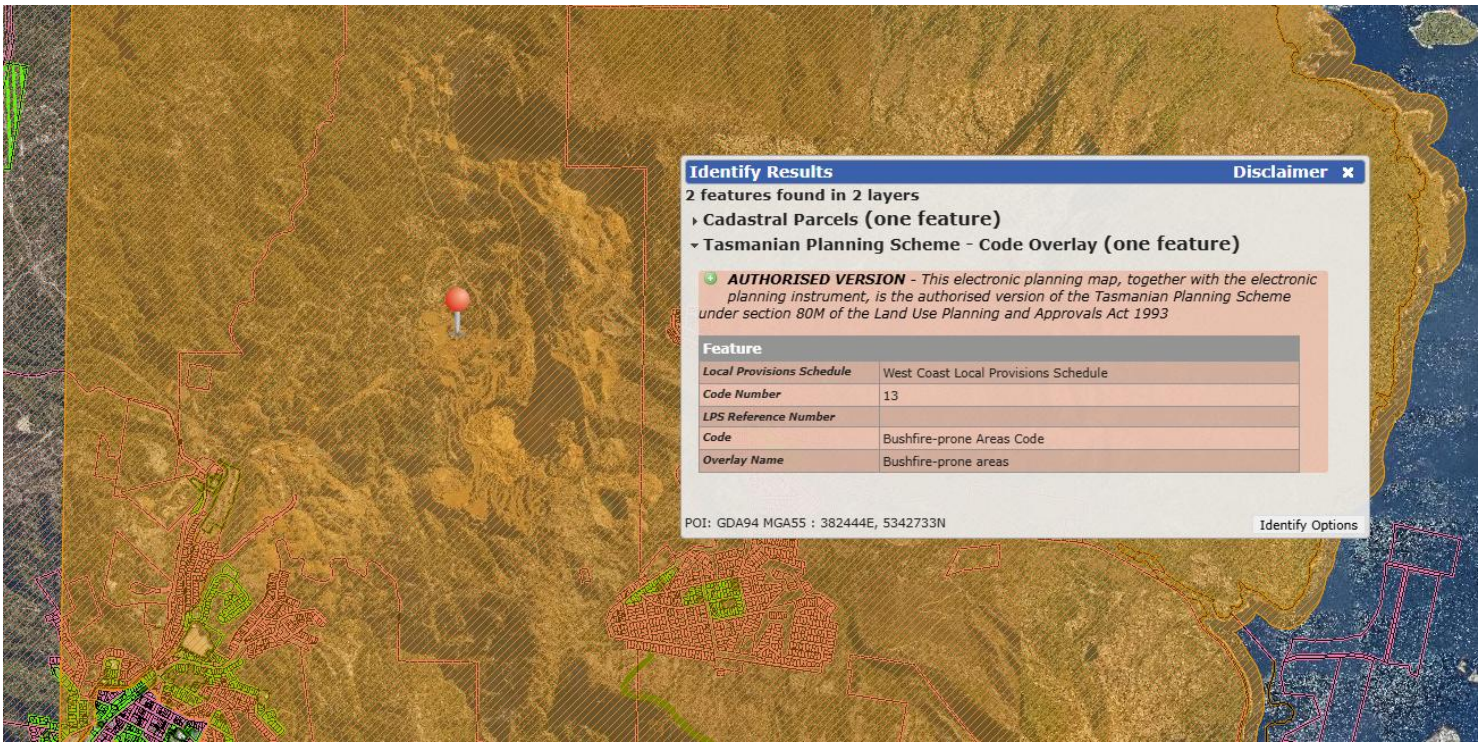
The **highlighted area** is required to be maintained as per the plan and in line with AS3959/2018.

Limitations

This report only deals with potential bushfire risk, and all other statutory assessments are outside this report. All information provided was at the time of inspection of the site, and this report is not to be used for further or future development of the site other than what has been provided by the plans attached. This report and/or management plan does not guarantee that the building will survive a bushfire.

Bushfire Mapping

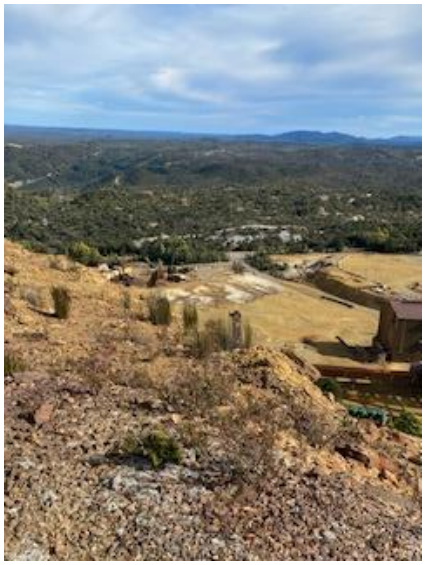
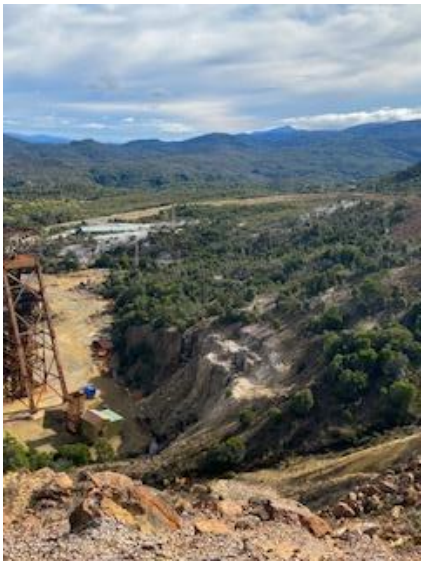
This site is considered bushfire prone as per LISTmap.

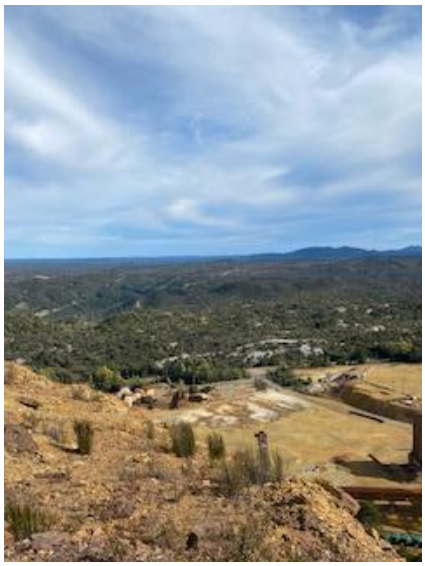


Vegetation classification AS3959	North	East	South	West
Group A	Forest	Forest	Forest	Forest
Group B	Woodland	Woodland	Woodland	Woodland
Group C	Shrub-land	Shrub-land	Shrub-land	Shrub-land
Group D	Scrub	Scrub	Scrub	Scrub
Group E	Mallee-Mulga	Mallee-Mulga	Mallee-Mulga	Mallee-Mulga
Group F	Rainforest	Rainforest	Rainforest	Rainforest
Group G	Grassland	Grassland	Grassland	Grassland
Predominant Feature	Scrub	Scrub	Scrub	Scrub
Excluded				
Effective slope (degrees)	Up/0^0	Up/0^0	Up/0^0	Up/0^0
	>0-5^0	>0-5^0	>0-5^0	>0-5^0
	>5-10^0	>5-10^0	>5-10^0	>5-10^0
	>10-15^0	>10-15^0	>10-15^0	>10-15^0
	>15-20^0	>15-20^0	>15-20^0	>15-20^0
Distance to classified vegetation	90 metres	90 metres	90 metres	70 metres
Distance Required for Onsite Bushfire Hazard Management	27 metres	27 metres	43 metres	39 metres
Likely direction of bushfire attack	North	East	South	West
Prevailing winds	North	East	South	West
BAL Value (FDI 50)	BAL – 12.5	BAL – 12.5	BAL – 12.5	BAL – 12.5

The values have been achieved from the location proposed, within the constraints of the site. If the location or nature of the proposal is to be altered for any reason this report will need to be amended to suit

Photos



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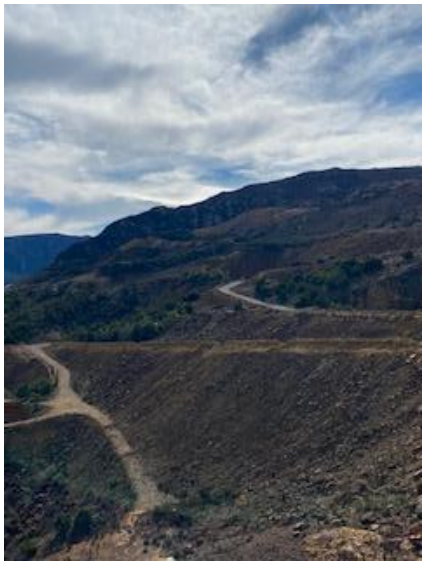
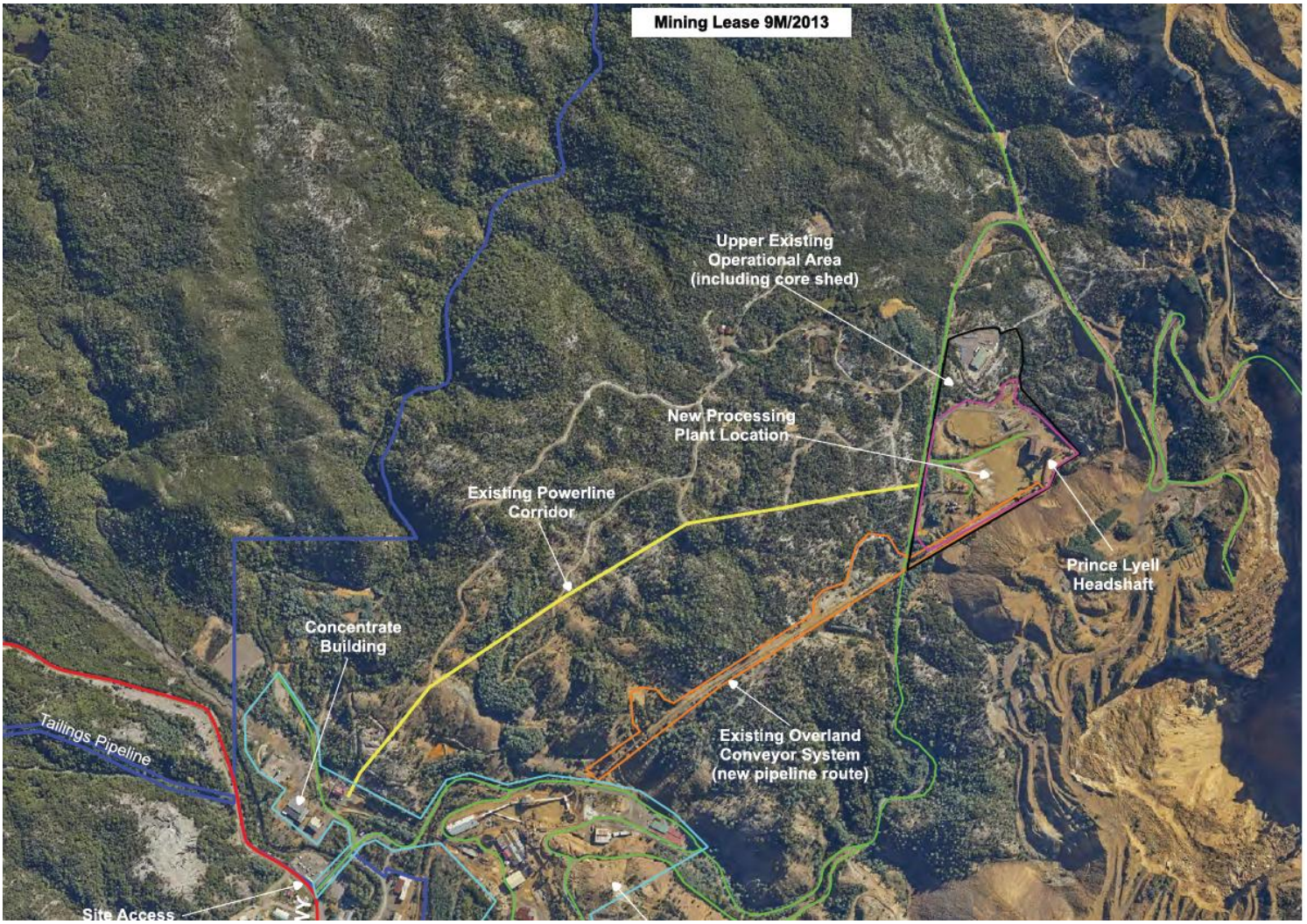


Photos

Appendix 1: General Overview of Bushfire Attack Level Classifications

BAL – LOW	**The risk is considered to be VERY LOW.** There is insufficient risk to warrant any specific construction requirements but there is still some risk.
BAL – 12.5	**The risk is considered to be LOW.** There is a risk of ember attack. The construction elements are expected to be exposed to a heat flux not greater than 12.5 kW/m^2.
BAL – 19	**The risk is considered to be MODERATE.** There is a risk of ember attack and burning debris ignited by windborne embers and a likelihood of exposure to radiant heat. The construction elements are expected to be exposed to a heat flux not greater than 19 kW/m^2.
BAL – 29	**The risk is considered to be HIGH.** There is an increased risk of ember attack and burning debris ignited by windborne embers and a likelihood of exposure to an increased level of radiant heat. The construction elements are expected to be exposed to a heat flux not greater than 29 kW/m^2.
BAL – 40	**The risk is considered to be VERY HIGH.** There is a much increased risk of ember attack and burning debris ignited by windborne embers, a likelihood of exposure to a high level of radiant heat and some likelihood of direct exposure to flames from the fire front. The construction elements are expected to be exposed to a heat flux not greater than 40 kW/m^2.
BAL – FZ	**The risk is considered to be EXTREME.** There is an extremely high risk of ember attack and burning debris ignited by windborne embers, and a likelihood of exposure to an extreme level of radiant heat and direct exposure to flames from the fire front. The construction elements are expected to be exposed to a heat flux greater than 40 kW/m^2.

Appendix 2 – plan as provided by client



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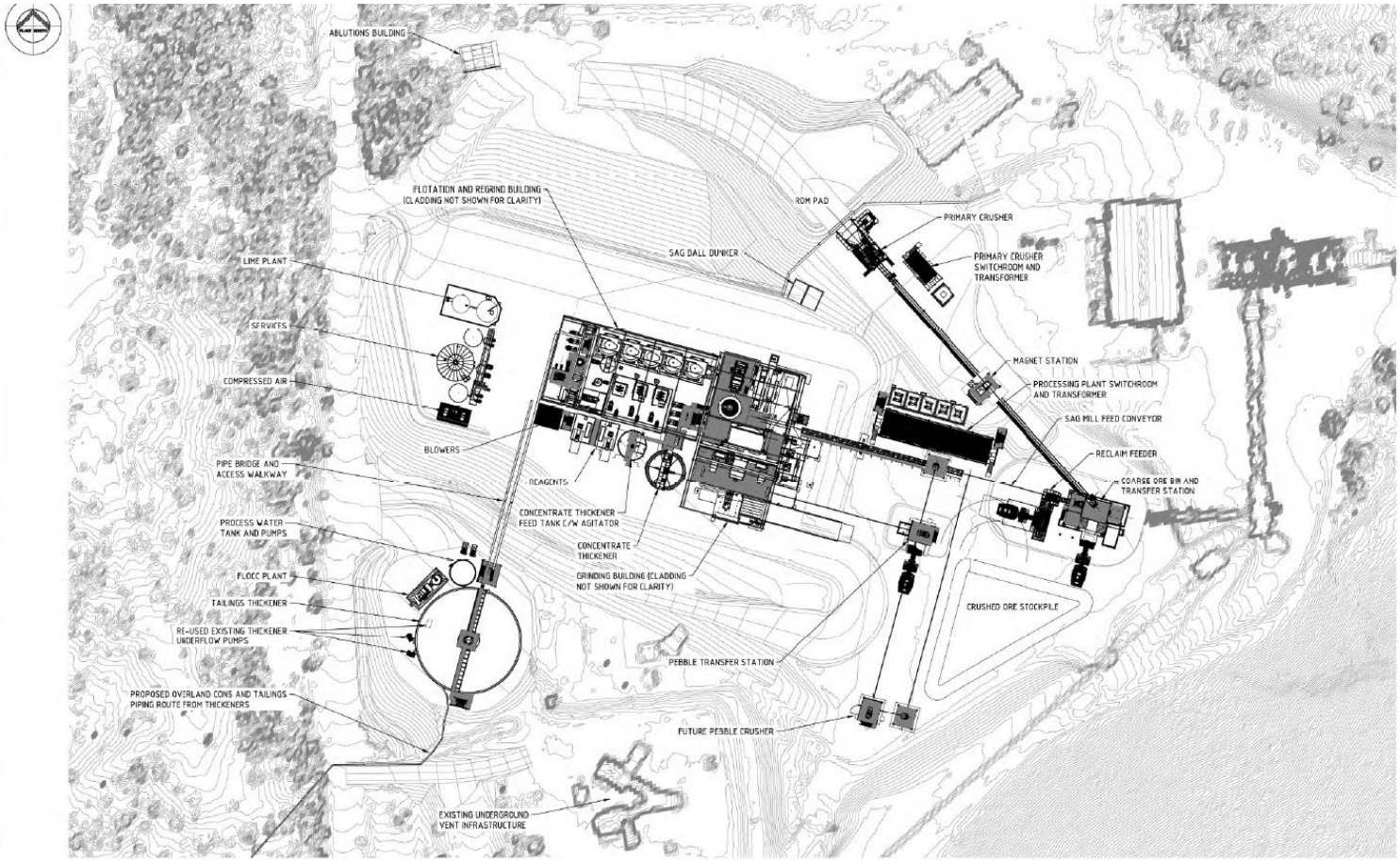

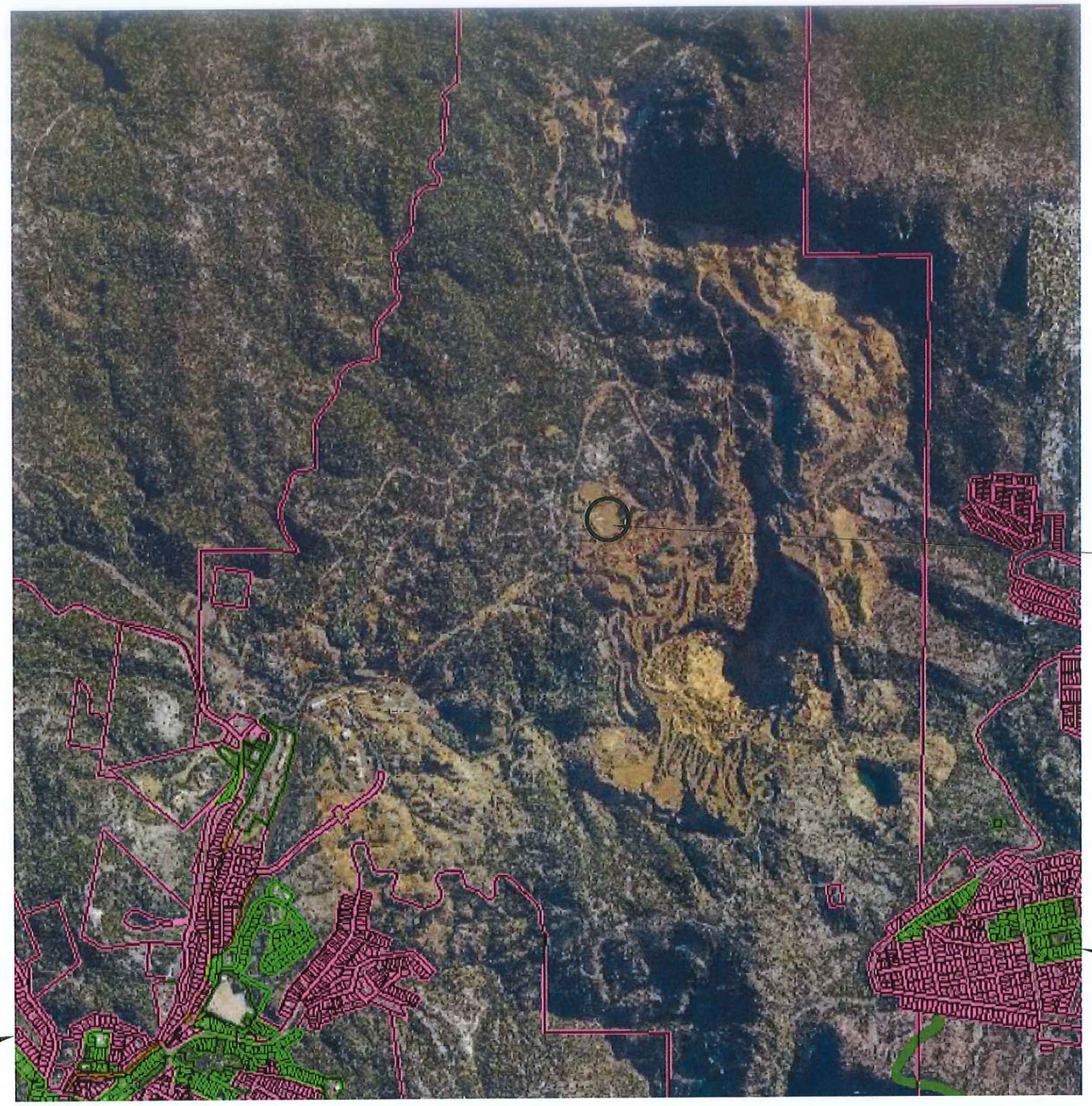

PID 7772249
Penghana Road
Queenstown TAS
NRE Tas

this Bushfire Hazard Management Plan has been prepared by Jason Van Zetten
Accreditation no. BFP113
scope of work 1,2,3A

this Bushfire Hazard Management Plan is to be read in conjunction with report no.8243 prepared by Jason Van Zetten
Accreditation no. BFP113
scope of work 1,2,3A

bushfire hazard management plan

SCALE: 1:2000 approx

bal 12.5

A COPY OF THIS DOCUMENT MUST BE PROVIDED TO ALL CURRENT & SUCCESSIVE OWNERS TO MAKE THEM AWARE OF THEIR OBLIGATIONS OF CONTINUING MAINTENANCE AND BUSHFIRE ASSOCIATED RISK

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amendment
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bushfire hazard management plan
for: Sibanye Stillwater Australia - Mt Lyell Copper Mine
PID 7772249
Penghana Road
Queenstown

dwg no.	BFHMP - 8243			version - 01
sheet:	01	of	01	print date
date:	September 2025			17 SEP 2025
scale	1:2000 @ A3 approx			
bal	12.5			drawn: JVZ

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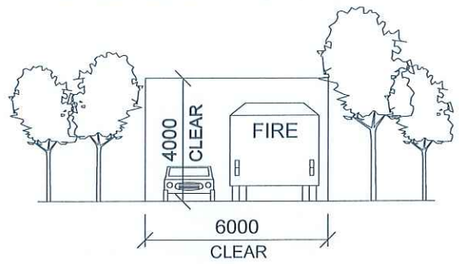
ACCESS / DRIVEWAY to dwelling is constructed of suitable all weather material suitable for fire truck access or exit from the site in all weather from the site at the time of a fire

vegetation must be cleared and kept clear and maintained to a height of 4m and a width of 6m clear access for fire fighting / fire truck access and other emergency vehicles



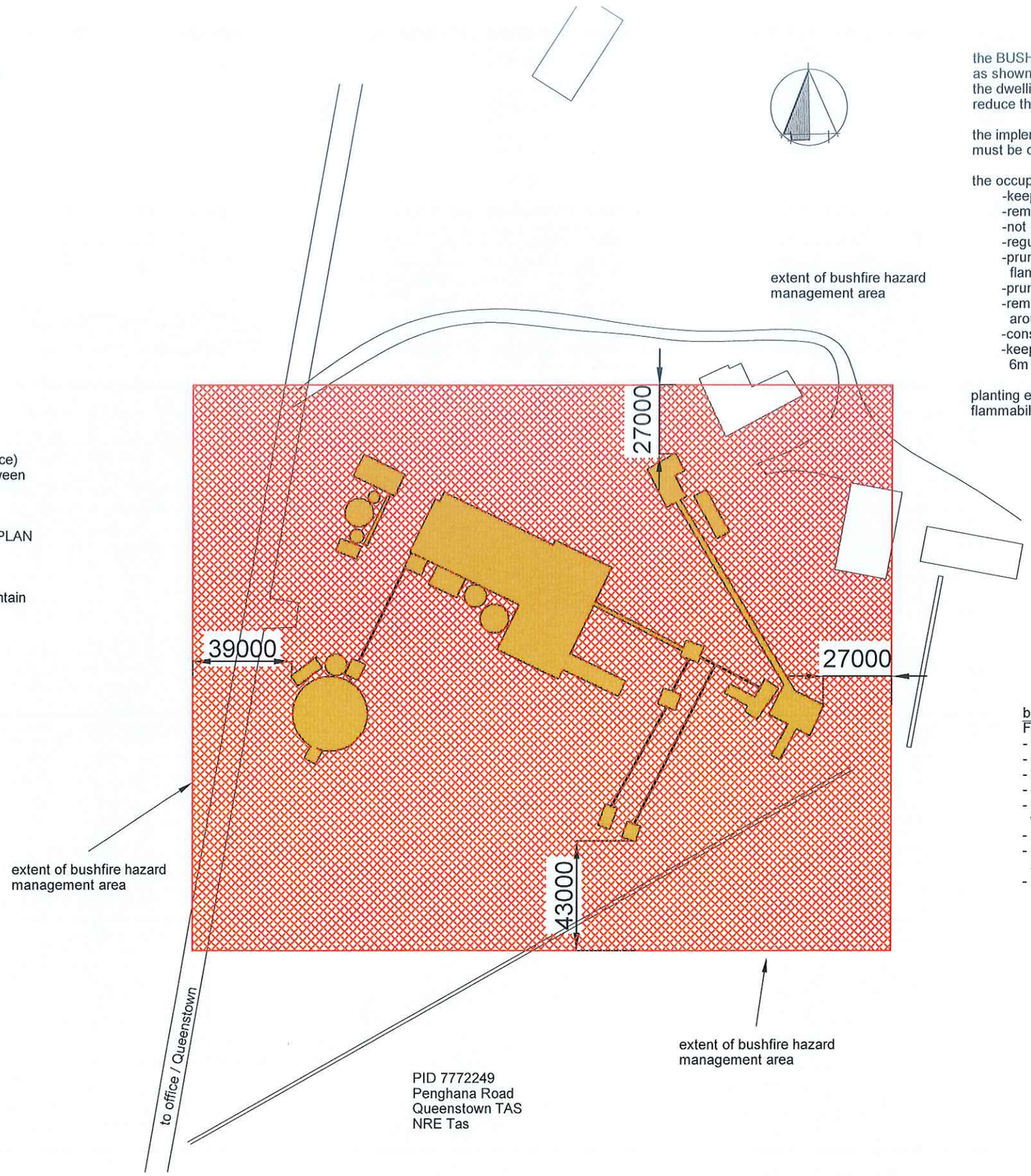
the BUSHFIRE HAZARD MANAGEMENT AREA (defendable space) as shown on this plan (shown hatched) has been designated between the dwelling and the risk and MUST be maintained / managed to reduce the spread of embers / flames / fires.

the implementation of this BUSHFIRE HAZARD MANAGEMENT PLAN must be carried out prior to occupancy of the new works.

the occupant must
- -keep grass / lawns to a length of less than 100mm, and maintain
- -remove fallen limbs, bark and litter from the BFHM area
- -not use flammable garden mulch such as pinebark
- -regularly thin out the under storey of trees and shrubs
- -prune low hanging tree limbs to create separation from flammable ground litter
- -prune larger trees to create canopy separation
- -remove and maintain flammable debris from gutters and around the building
- -construct non flammable driveways, paths and structures
- -keep fire wood storage to a minimum and greater than 6m from the building

planting establishment, where possible is to be primarily of low flammability shrubs species

this BUSHFIRE HAZARD MANAGEMENT PLAN has been prepared for this site / dwelling works only and is only associated with this project and is to be read in line with report associated with this plan. failure to implement / continue the management of this plan may result in failure to comply with insurance requirements / conditions



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legend

BUSHFIRE HAZARD MANAGEMENT AREA (HMA)

NEW WORKS (limitations of this BFHMP)

bush fire water supply - fittings pipework & accessories

Fittings and pipework assoc with fite fighting static water supply must;
- have a minimal internal diameter of 50mm
- be fitted with a valve with a diameter of 50mm
- be metal if above ground
- if buried have a minimum depth of 300mm
- provide a DIN or NEN standard forged Storz 65mm coupling fitted with a suction washer for connection to fire fighting equipment
- ensure coupling is accessible and available for connection at all times
- ensure the coupling is fitted with a blank cap and securing chain 220mm long securing chain minimum 220mm length
- where a remote offtake is installed, ensure the offtake is in a position that is
  - visible
  - accessible to allow connection by fire fighting equipment
  - at a working height of 450 - 600mm above ground level
  - and be protected from possible damage by vehicles

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Accreditation no. BFP113
scope of work 1,2,3A

this Bushfire Hazard Management Plan is to be read in conjunction with report no.8243 prepared by Jason Van Zetten
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bushfire hazard management plan

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