

**RE: VULNERABLE LAND USE - LOT 33 ON DP219892, MITCHELL FALLS CAMPGROUD,
MITCHELL PLATEAU - PROPOSED WORKERS ACCOMODATION, CAMP MESS AND
ABLUTIONS - DEVELOPMENT APPLICATION**

I refer to your email dated 28 February 2025 regarding the submission of a Bushfire Management Plan (BMP) (Revision B), prepared by Ecosystem Solutions and dated 26 February 2025, for the above development application.

This advice relates only to the State Planning Policy 3.7 Bushfire (SPP 3.7) and associated Planning for Bushfire Guidelines (Guidelines).

It is the responsibility of the proponent to ensure the proposal complies with relevant planning and building requirements. This advice does not exempt the applicant/proponent from obtaining approvals that apply to the proposal including planning, building, health or any other approvals required by a relevant authority under written laws.

Assessment

- DFES acknowledges that the use is already present within the National Park, and that the proposal is to relocate the workers accommodation as requested by the Traditional Owner Group, Wunambal Gaambera.
- DFES has confirmed with the Shire (decision maker) that the proposal is considered to have an element of vulnerability and has therefore been assessed under Bushfire Protection Criteria 8: Vulnerable Tourism Land Uses and Day Uses.
- The Shire has confirmed this proposal to be an intensification of development and the application of SPP 3.7 is triggered.
- The intent of SPP 3.7 is to implement effective, risk-based land use planning and Development which in the first instance avoids the bushfire risk, but where unavoidable, manages and/or mitigates the risk to people, property and infrastructure to an acceptable level. The preservation of life and the management of bushfire impact are paramount. DFES maintains the view that a broader landscape assessment should be considered in the context of vulnerable land use.
- Further clarification is required within the BMP of the requirements of SPP 3.7, and the supporting Guidelines as outlined in our assessment below.

1. Policy Measure 7.1 ii. c. BAL contour map

Issue	Assessment	Action	Ecosystem Solutions Comment
Vegetation Classification	<p>Vegetation plot 3 and plot 4 cannot be substantiated as Class D Scrub with the limited information provided.</p> <p>Height sticks have not been provided to confirm heights, and it is unclear how the plot has been separated from the adjoining Class B Woodland. The BMP should detail specifically how the Class D Scrub classification was derived as opposed to Class B Woodland.</p> <p>If unsubstantiated, the vegetation classification should be revised to consider the vegetation at maturity as per AS3959, or the resultant BAL ratings may be inaccurate.</p>	Modification to the BMP is required.	<p>Plots 3 and 4 are representative of open scrub vegetation, under 6m in height.</p> <p>Plots 1 & 2, similarly are representative of scrub vegetation, however the average height of the vegetation in these areas is 8m, therefore has been classified as Woodland, as a worst case scenario.</p> <p>The change in vegetation plots was recorded on site by the bushfire practitioner. It is the Bushfire Practitioners professional opinion that the bushfire modelling in AS3959 for Scrub vegetation is the most relevant in this vegetation.</p>
Vegetation Exclusion	The exclusion of plot 5 in its entirety cannot be	The decision maker to be	A large area of lot 5 to the east of the

	<p>substantiated. DFES notes that the vegetation within plot 5 appears to be a continuation of the classified vegetation within plots 1 to 4. Additionally, the APZ for the site requires the vegetation beyond what has been assessed to manage to a low threat state.</p> <p>An enforceable mechanism is required to provide certainty that the proposed management measures can be achieved in perpetuity and that they are enforceable.</p>	satisfied with the vegetation exclusions and vegetation management proposed.	<p>Site is an existing DBCA managed campgrounds, with an open understory, with scattered overstory species, to provide shade and amenities to visitors.</p> <p>The Bushfire Management Plan, once approved, provides a legally enforceable mechanism that the APZ will be maintained in perpetuity (in season/when the site is in use).</p>
Method 2	<p>DFES notes that greater clarity is required around definitions for inputs to Method 2 calculations, of particular relevance to this application are those regarding effective slope. No contour map has been provided to support the slope inputs. Additionally, there is no BAL -2 within AS3959:2018, it appears that reference to BAL-2 should be replaced with 2 kW/m2. Accordingly, DFES</p>	Modification to the BMP is required.	Not applicable - Method 2 removed.

	advises that the Method 2 outputs cannot be validated.		
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2. Policy Intent

Assessment	Action	Ecosystem Solutions Comment
<p>DFES acknowledges that the new Guidelines do not require the assessment of Location for development applications. However, the requirements for compliance with Siting and Design, in isolation does not allow for consideration of the overall location of the site and the broader landscape. This is considered to be of key importance mainly due to the need to consider vehicular access/egress and the extreme bushfire hazard surrounding the development site. Consideration should be given to the site context and the serious threat of bushfire to people, property and infrastructure at this location. It is considered that the likelihood of a bushfire, its severity and intensity, and the potential impact on life and property posed by the bushfire hazard at this location represents an extreme bushfire risk that cannot be managed/mitigated to an acceptable level.</p> <p>This location does not provide for appropriate bushfire protection to manage/mitigate the bushfire risk based on a range of factors including, but not limited to:</p> <ul style="list-style-type: none"> • Evacuation from the site, with its singular access route, may not be possible and if attempted could pose an unacceptable risk to human safety. 	Decision maker to be satisfied.	<p>Location is not a requirement of the Guidelines.</p> <p>The Bushfire Evacuation Plan takes into account the site specific limitations due to its remote access.</p>

<ul style="list-style-type: none"> Shelter on site is not considered an acceptable alternative to evacuation given the extreme risk to life and property at this location. Due to the extreme bushfire prone vegetation on multiple aspects, catastrophic bushfire behaviour is likely, and a bushfire could develop rapidly and grow to a significant size, that presents an unacceptable risk to the preservation of life, property and infrastructure. 		
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**3. Policy Measure 7.1 ii. e. Compliance with the Bushfire Protection Criteria 8:
Development - Vulnerable tourism land uses and day uses**

Issue	Assessment	Action	Ecosystem Solutions Comment
Siting and design	A2.1b - not demonstrated The BAL ratings cannot be validated for the reason(s) outlined in the above table.	Modification to the BMP is required.	As per the above
	A2.3 and A2.4 - not demonstrated A large area of native vegetation is required to be modified to achieve an APZ compliant with Schedule 1: Standards for Asset Protection Zones to ensure that the onsite open space shelter achieves 2 kW/m ² with a 1200K flame temperature. It is for the decision maker to determine if the proposal	Decision maker to be satisfied.	The site is not considered a vulnerable development. A shelter open space area is not required.

	<p>avoids or where it is unavoidable, minimises the clearing of native vegetation. A Landscape Management Plan should be prepared to remove ambiguity for the landowner and to provide a compliance mechanism for the Shire.</p>		
	<p>A2.5 - not demonstrated The method 2 calculations cannot be validated for the reason(s) in the above table. Additional evidence is required to demonstrate that there is sufficient separation distance from the bushfire prone vegetation to avoid exposure to a radiant heat flux exceeding 2 kW/m²</p>	Modification to the BMP is required.	N/A - Method 2 removed
Vehicular Access	<p>A3.5 - not demonstrated A3.5 cannot be validated for the reason(s) outlined above in A2.5.</p>	Modification to the BMP is required.	<p>The Site is a relocation of an existing site, which has limited vehicular access. There is no opportunity for the proponent to improve the vehicular access to the site by the installation of existing roads or access ways.</p>
Water Supply	A4.1 - not demonstrated	Modification to the BMP is	Structures within the site a non-

	<p>DFES does not accept the BMP's statement that compliance has been achieved.</p> <p>It has not been demonstrated that there is sufficient onsite water supply available and dedicated to firefighting purposes, with inconsistencies between the BMP and the development plans (figure 1).</p> <p>There are a number of comments made within the BMP which make it unclear if an outcomes-based approach is being proposed, including:</p> <ul style="list-style-type: none"> • There is limited drinking water available on site. • The intention is early evacuation and not actively defend therefore no water tanks for firefighting are proposed. • DBCA would be first responders and are aware of the locations of the available firefighting water throughout the Mitchell River National Park. <p>The BMP should be modified to provide clear detail of how</p>	<p>required.</p>	<p>permanent and are considered a tolerable loss.</p> <p>Given the remote location of the site, any firefighting activities will be from the air, therefore the provision of water for fire fighting purposes is not necessary.</p>
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	<p>the acceptable solution is achieved, or demonstrate compliance with evidence that substantiates an outcomes based approach. If the practitioner does propose an outcomes-based approach, it is for the decision maker to determine that the outcomes of the policy can be achieved.</p>		
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Bushfire Emergency Plan

Mitchell Falls Helibase Staff Camp, Mitchell River National Park

17 July 2025

Prepared for:
Helispirit



Limitations Statement

This report has been prepared in accordance with the Agreement between Ecosystem Solutions Pty Ltd and Helispirit (“**Client**”). It has been solely prepared for a Bushfire Emergency Plan for the Mitchell Falls Helibase Staff Camp, Mitchell River National Park (“**Site**”).

Information

In undertaking this work the authors have made every effort to ensure the accuracy of the information used. Unless otherwise stated in the report, Ecosystem Solutions Pty Ltd has not independently verified such information and cannot guarantee its accuracy or completeness.

Conclusions

Within the limitations imposed by the scope of work, preparation of this report has been undertaken and performed in a professional manner, in accordance with generally accepted practices and using a degree of skill and care ordinarily exercised by reputable bushfire consultants under similar circumstances. No other warranty, expressed or implied, is made.

Reliance

This report is solely for the use of the Client and any reliance on this report by third parties will be at such party’s sole risk. This report must only be presented in full and may not be used to support any other purpose than those set out in the report and the Agreement, except where prior written approval with comments are provided by Ecosystem Solutions Pty Ltd. All intellectual property rights in documents created by Ecosystem Solutions Pty Ltd remain the property of Ecosystem Solutions Pty Ltd.

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Ecosystem Solutions Pty Ltd will not be liable to update or revise the report to take into account any events or emergent circumstances or facts occurring or becoming apparent after the date of this report.

Other limitations

The measures contained in this report cannot guarantee that a structure or building will not be damaged or would survive a bushfire event on every occasion. This is due to the degree of vegetation management, the

unpredictable nature of fire behaviour (knowledge in this field continues to develop) and the unpredictable nature of extreme weather conditions.

The growth, planting or removal of vegetation, poor maintenance of any fire prevention/mitigation measures, addition of structures not included in this report, or other activity can and will change the bushfire threat to all properties detailed in this report. The implementation of fire precautions will depend on the actions of the landowner or occupiers of the land, over which Ecosystem Solutions Pty Ltd has no control. Should changes be made to the Site, a new Bushfire Management Plan is required.

Ecosystem Solutions Pty Ltd accepts no Liability, including Liability for any Loss in connection with:

- a Claim, damage, or injury to property, or persons caused by fire;
- further growth, planting, or removal of vegetation on the Site;
- poor maintenance of any fire protection measures;
- additional structures not included in this assessment; or
- any other activity that may change the bushfire threat level.

The Client and owner of the Site each acknowledge that they have been made aware of the exclusions above and that such exclusion of Liability is reasonable in all the circumstances.

STATEMENT OF CONFORMITY - *PLANNING AND DEVELOPMENT ACT 2005*



Gary McMahon

B.Sc. M. Env Mgmt. PG Dip Bushfire Protection. C.EnvP, BPAD Level 3 (35078)

The signatory declares that this Bushfire Evacuation Plan meets the requirements of State Planning Policy 3.7 and the Planning for Bushfire Guidelines.

DISCLAIMER

**All capitalised terms used in the Limitations Statement above that are not defined are defined in the Agreement between Ecosystem Solutions Pty Ltd and the Client.*

*** The limitations above are subject to any relevant rights or remedies that the Client may be entitled to under legislation, including Schedule 2 of the Competition and Consumer Act 2010 (Cth).*

Document Control

Client - Helispirit

Site - Mitchell Falls Helibase Staff Camp, Mitchell River National Park

Version	Revision	Purpose	Author	Reviewer	Submitted	
					Form	Date
Report	Rev A	Initial Report	DC (BPAD48409 Level 1)	GM (BPAD35078 Level 3)	Electronic (email)	2/11/2022
Report	Rev B	Minor Amendments	DC (BPAD48409 Level 2)	GM (BPAD35078 Level 3)	Electronic (email)	26/02/2025
Report	Rev B	Remove shelter	DC (BPAD48409 Level 2)	GM (BPAD35078 Level 3)	Electronic (email)	17/7/2025

Filename: Y:\PROJECTS\221381 Mitchell Falls BMP BEEP\Reports\Mitchell Falls BEP Rev C.docx

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1 Introduction

The proposed Mitchell Falls Helibase Staff Camp is located in the Mitchell River National Park in the Shire of Wyndham-East Kimberley (hereafter referred to as the 'Site', Figure 1). The existing pilot accommodation is located within a flood zone and the Traditional Owner Group, Wunambal Gaambera have requested that this be relocated away from the flood zone.

The Site is located within a bushfire prone area, as declared by *State Planning Policy 3.7: Planning in a Bushfire Prone Area*.

The Site has a maximum occupancy of 20 people and is utilised between May and October, 24 hours a day, 7 days a week.

The Fire Danger Index (FDI) for Western Australia is 80, and the fire season is between May and October each year.

This Plan has been designed to assist in the protection of life and property in the event of a bushfire. This plan outlines procedures for evacuation, to enhance the protection of occupants from the threat of a bushfire.

This Plan is to be used as a Guide to assist in decisions during a bushfire event. There are a range of possibilities as to where the bushfire will occur and how this impacts the ability to evacuate. Direction from Emergency Services and Department of Biodiversity, Conservation and Attractions (DBCA), who are the controlling agency within a National Park for a bushfire, should always be taken as they have the most up to date information on the behaviour and location of the bushfire.

The Site Manager is to review this Plan on an annual basis.

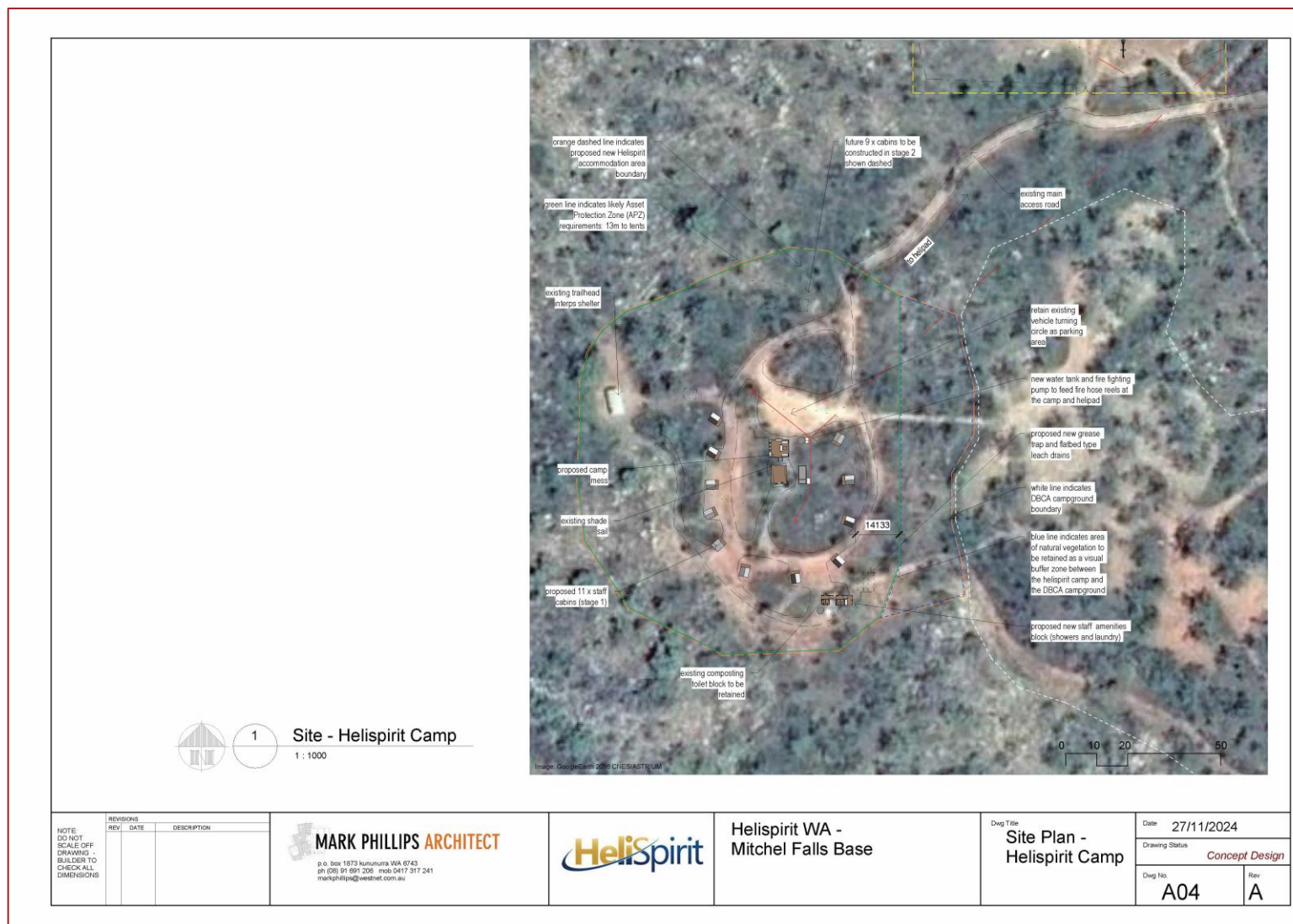


Figure 1 Site Plan for Mitchell Falls Helispirit Staff Camp showing existing and proposed structures

2 Risk Analysis

NSW Rural Fire Service, 2014, *Development Planning: A guide to developing a Bushfire Emergency Management and Evacuation Plan*

Site Information		
Type of premise	Pilot Accommodation	
Occupants	Pilots & Personnel	
Special health considerations	Occupants may suffer asthma/breathing difficulty in the presence of smoke.	
Facility is in a bushfire prone area	Yes	
Evacuation		
How accessible is the premise	Accessibility to the Site is limited, with access predominantly by Air, with vehicular access limited to four-wheel drive vehicles only.	Limited !
Quality of roads	Roads and tracks do not meet the requirements of the <i>Planning for Bushfire Guidelines</i> . Vehicle access is limited to four-wheel drive vehicles only.	Limited !
Does the transport route go through a bush fire prone area	The Site and surrounding area are within a bushfire prone area. The primary evacuation will be via aircraft.	Limited !

CONCLUSION

Early Evacuation - Summary	
Are occupants needs better suited to evacuation	Evacuation early in the development of the fire is the only course of action.
Destination	<p>Kununurra township.</p> <p>The size and location of the bushfire will determine any evacuation center that is activated by emergency services.</p> <p>For the purposes of this plan, the recommended welfare centre that is approved by the Shire of Wyndham-East Kimberly is the Kununurra Leisure Centre, 115 Coolibah Drive, Kununurra. This location has been chosen as it likely to provide a safe distance between the Site and the likely location of a bushfire threatening the Site.</p> <p>Instructions from Emergency Services should always be taken when available.</p>
Transport	Aircraft
Are special needs addressed	Individual care must include evacuation, i.e., the aircraft of arrival must be available.

3 Bushfire Emergency Plan

This Bushfire Emergency Plan has been designed to assist in the protection of life and property in the event of a bushfire. The plan outlines procedures for evacuation to enhance the protection of occupants from the threat of a bushfire. An outline of the potential issues that will arise in a bushfire event is provided and specifies the most appropriate emergency actions to take to minimise the potential risk to Personnel and Assets at the Site.

The primary action for this Site is to: **EARLY EVACUATION**

Site Details	
Name	Mitchell Falls Helispirit Staff Camp, Mitchell Falls National Park
Address	Mitchell Falls, Mitchell Falls National Park
Evacuation Route	<p>The primary evacuation from the Site will be by Air (if safe to do so) from the Helispirit Helibase.</p> <p>Secondary evacuation is by 4-wheel drive vehicle via the DBCA Management Access Track, Twelfth Street, Port Warrender Road, Gibb River-Kalumburu Road, Gibb River-Wyndham Road and Great Northern Highway, to a suitable destination away from the threat of bushfire.</p>
Local Government Area	Shire of Wyndham-East Kimberley
Maximum Occupancy	20
Use	Pilot Accommodation

Table 1 *Emergency Contacts*

Organisation	Service Provided	Contact Details
Police, Fire	In an Emergency / to receive assistance	000
Emergency WA Website	Total Fire Ban Days Fire Danger Index Ratings Bushfire Warnings	https://www.emergency.wa.gov.au/
Department of Fire and Emergency Services	Total Fire Ban Days Fire Danger Index Ratings Bushfire Alerts/Warnings Evacuation Advice	133 337 www.dfes.wa.gov.au twitter.com/dfes.wa
Department of Biodiversity, Conservation and Attractions	Bushfire	9768 4200 / 0404 886 884
Total Fire Ban Hotline	Total Fire Ban Days	1800 709 355
Bureau of Meteorology	Fire Danger Ratings Weather Seasonal Forecast	www.bom.gov.au/weather/wa www.bom.gov.au/climate/outlooks/#overview/video
ABC Local Radio Kimberley	News and Updates	Radio frequency 675 AM https://www.abc.net.au/radio/kimberley/
Royal Flying Doctor Service	Emergency medical care	1800 625 800 For satellite phones: 08 9417 6389

3.1 Preparation

3.1.1 Equipment

Install and/or maintain the following firefighting equipment (Land occupier/Manager):

1. A 4kg dry chemical Fire Extinguisher with instructions for use within Camp Mess.
2. A radio, with batteries, and instructions to tune into Radio Frequency 675 AM for news and updates in the event of a bushfire.
3. A copy of the Emergency Evacuation Diagram displayed on the internal face of all external doors and back of toilet doors.

Seasonal preparation

Prior to each Bush Fire Season declared by the Local Government each year, approximately May to October, it is important to become ready for an evacuation in the event of a bushfire and understand the potential bushfire climate. The Bureau of Meteorology (BOM) produces a quarterly climate outlook video which includes an assessment of the potential for a bushfire. It is recommended to watch the BOM video prior to each bushfire season which provides a seasonal forecast, provided in Table 1.

Conduct seasonal works, to be undertaken at the commencement of the Bushfire Season (Land occupier/Manager):

1. Ensure all access ways have the appropriate vertical and horizontal clearances in good traversable condition.
2. Ensure the Asset Protection Zone is maintained in a low-fuel state.
3. Ensure all buildings are free of flammable materials, none located within 5 m.
4. Ensure all objects attached to the buildings are non-combustible or easily removable, and the removing mechanism is in working order.
5. Ensure all gas cylinders are positioned with pressure relief valve facing away from the building and not within 6m of any flammable material.
6. Ensure fire hoses and firefighting equipment are in working order. Check the charge level on all fire extinguishers is adequate.
7. Ensure the plan and evacuation details are clearly displayed and conveniently located for all personnel.
8. Review the Bushfire Emergency Plan, procedures and ensure that all contact phone numbers are correct.

9. Ensure that the nominated on-site and off-site welfare centre locations and routes to both are still a safe option.

Daily preparation during the bushfire season

Conduct daily preparation during the declared Bush Fire Season, in the morning (Manager):

1. Check the Emergency WA website for any alerts.
2. Ensure evacuation logistics and resourcing are fully provided for and immediately accessible, including a suitable vehicle immediately accessible to evacuate all personnel.
3. Ensure personnel upon arrival are bushfire aware and familiar with the evacuation procedures.
4. Inspect grounds to:
 - a. Ensure flammable materials are not stored adjacent to buildings.
 - b. Ensure firefighting equipment and access-ways are clear of any obstructions.

3.2 Bushfire Warning and Danger Ratings

3.2.1 Total Fire Bans

The Department of Fire and Emergency Services (DFES) issues Total Fire Bans on days where a fire is most likely to spread (because of extreme fire weather) or if there are already widespread fires and resources are limited. Total Fire Bans are announced either the day before, or on the day. And usually state at midnight and last 24 hours.

On a Total Fire Ban Day, you are not allowed to light an open-air fire or conduct any activity that could start a fire. This includes lighting a campfire, using a welder, grinder, or incinerator, conducting a burn-off, burning leaves and garden waste, using a wood or charcoal BBQ, using a wood-fire oven, or driving a vehicle that will be in contact with vegetation.



3.2.2 Fire Danger Ratings

The Department of Fire and Emergency Services (DFES) provides community and emergency advice about predicted and current conditions that advise about the level of bushfire threat.

The Fire Danger Index Rating (FDR) is based on the weather conditions forecast by the Bureau of Meteorology. These ratings provide advice about the level of the bushfire threat on a particular day (up to four days in advance) and how dangerous and difficult the conditions will be if a fire starts. The level of warnings and their meanings are detailed below in Table 2.

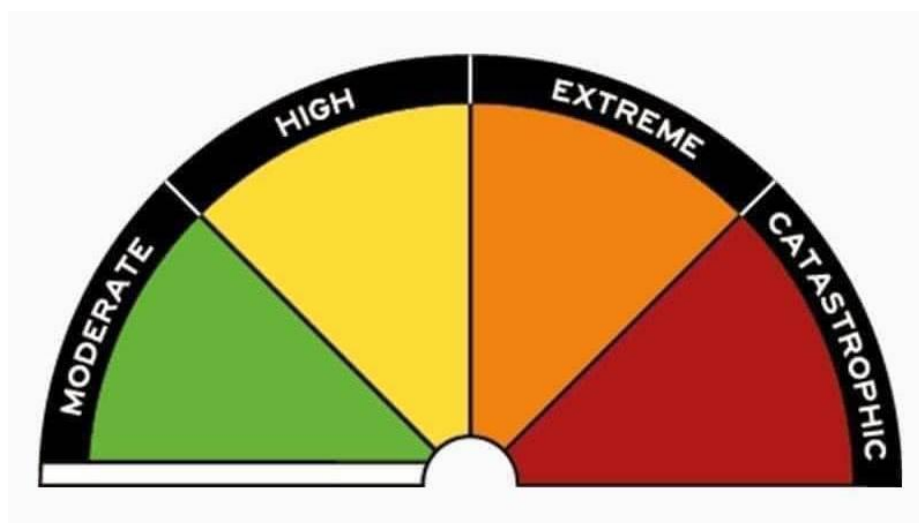





Table 2 *Summary of actions according to Fire Danger Rating*

Rating	Meaning
<u>Catastrophic</u>	<p>If a fire starts and takes hold, lives are likely to be lost.</p> <p>Stay safe by going to a safer location early in the morning or the night before.</p> <p>Prepare your emergency kit and choose where you will go and different ways to get there.</p> <p>Homes cannot withstand fires in these conditions. You may not be able to leave, and help may not be available.</p>
Extreme	<p>Fires will spread quickly and be extremely dangerous in these conditions.</p> <p>If a fire starts, take immediate action. If you and your property are not prepared to the highest level, plan to leave early.</p> <p>Avoid travel through bushfire risk areas.</p>
High	<p>Fires can be dangerous in these conditions.</p> <p>There is a heightened risk. Be alert for fires in your area.</p> <p>If a fire starts, your life and property may be at risk.</p> <p>Leave bushfire risk areas if necessary.</p>
Moderate	<p>Most fires can be controlled in these conditions.</p> <p>Stay up to date and be alert for fires in your area.</p>
No Rating	<p>Bushfires which start in these conditions are unlikely to spread in a dangerous or life-threatening way, but you will still need to remain alert and abide by local seasonal laws and regulations.</p>

3.2.3 Bushfire Warning System

During a bushfire, DFES and the Department of Biodiversity, Conservation and Attractions (DBCA) issue community alerts and warnings for bushfires that threaten lives and property. They are only issued once firefighters have arrived at the scene and determined that there is a threat, or potential threat to the public. The level of warnings and their meanings are detailed below in Table 3.

Table 3 Bushfire Warnings - DFES and DBCA Issued



Warning	Meaning
	Advice A fire has started but there is no immediate danger. Stay alert and watch for signs of a fire. Be aware and keep up to date.
	Watch and Act A fire is approaching and there is a possible threat to lives or homes. Put your plan into action. If your plan is to leave, make sure you leave early. If your plan is to stay, check all your equipment is ready. Only stay and defend if you are mentally and physically prepared.
	Emergency Warning An out-of-control fire is approaching fast, and you need to take immediate action to survive. If you haven't prepared it is too late. You must seek shelter or leave now if it is safe to do so.



3.3 Bushfire Emergency Triggers

Given the vulnerable nature of the Site and the limited access and egress options, the primary action in the event of a bushfire within the vicinity of the Site is **Early Evacuation**.


The tents within the Site cannot be constructed to AS3959 construction standards and will not withstand bushfire attack.

Table 4 Emergency Triggers

Trigger	Action
Emergency Warning issued by Emergency Services 	Evacuate If an Emergency Warning is issued or if advised by emergency services that a bushfire is within 3 km from the Site, the manager will liaise with emergency services and appropriate air authorities and then the EVACUATION procedures will be enacted.
Bushfire within 3 km from Site and evacuation route 	If the bushfire is blocking the evacuation route but is more than 3 km from the Site, then personnel can stay within their own tents as this allows for greater amenities. When the bushfire is within 3 kms, personnel are to evacuate.

Trigger	Action
<p><u>Catastrophic</u> Fire Danger Index Day</p> <p>Watch and Act issued by Emergency Services</p>  <p>Bushfire within 5 km from Site and evacuation route</p> 	<p>Close the Site - Evacuate</p> <p>If a Catastrophic Fire Danger Index Day occurs close the Site and enact the Evacuation procedure. If advised by Emergency Services that the area is within Watch and Act or a bushfire is within 5 km¹ from the Site, the Staff Camp will be closed, and the EVACUATION procedures will be enacted upon agreement from Emergency Services that evacuation is possible.</p> <p>Personnel that are scheduled to arrive will be contacted as soon as possible, prior to their arrival and advised that the Staff Camp is closed due to the Catastrophic risk should a bushfire occur. If evacuation is by air personnel will be directed to the safest airport. If the evacuation by vehicle personnel are to be directed to the designated community welfare centre (if open) until the Fire Danger Index is reduced.</p>
<p>Extreme Fire Danger Index Day</p>	<p>Monitor</p> <p>On days where an Extreme Fire Danger Index is achieved, the manager is to monitor the DFES website regularly to ensure a bushfire has not occurred. Personnel are to be advised of the heightened risk of a bushfire and reminded of the Evacuation procedures.</p> <p>Regular communication should be made with accommodation establishments where guests have arrived by aircraft to ensure an evacuation can be instigated if a bushfire occurs.</p>

¹ NOTE - This is a guide only. Advice from Emergency Services will be required to determine precise location and direction of travel of any bushfire to minimize risk to people and to determine if evacuation is possible.

Trigger	Action
<p data-bbox="164 344 576 421">Advice issued by Emergency Services</p> 	<p data-bbox="598 344 699 376">Monitor</p> <p data-bbox="598 400 1430 616">If an advice warning is issued, the manager should liaise with Parks and Wildlife and stay informed with information from Emergency services to the status of the bushfire. Smoke may be an issue, and all air conditioners should be turned off. The Site should be inspected regularly for any sign of bushfire activity.</p> <p data-bbox="598 640 1430 855">Personnel should be advised of the heightened risk of a bushfire and reminded of the evacuation procedures. Regular communication should be made with any accommodation establishment where guests have arrived via air to ensure an evacuation can be instigated if a bushfire occurs.</p> <p data-bbox="598 880 1430 1005">It may be prudent, depending on the location of the Bushfire, the wind direction or under the advice of emergency services, to enact the EVACUATION procedures.</p>

3.4 Roles and Responsibilities

Manager / Fire Warden

- Pre-Event Duties;
 - Complete Fire Warden training which complies with AS 3745-2010: Planning for Emergencies in Facilities.
 - Monitor the bushfire warnings daily.
 - Implement the training of all staff and personnel in the Bushfire Emergency Evacuation Plan procedures.
 - Ensure all equipment is available and in good working order including fire extinguishers, satellite phones, radio with batteries to listen to ABC Kimberley in the event communication is lost, water trailer.
- Bushfire Event Duties;
 - Overall management of a Bushfire Event, including both evacuation procedures;
 - Ascertain the nature of the bushfire event, and implement the appropriate action, according to the triggers within the Bushfire Emergency Plan;
 - Notify and liaise with Emergency Services and Parks and Wildlife during a bushfire event;
 - Ensure all personnel are advised and kept up to date on the situation.
 - Monitor the bushfire event and any evacuation, being aware that conditions may change rapidly, and the type of evacuation may change.
 - Ensure Emergency Services are kept informed with the status of any evacuation.

3.5 Evacuation Routes & Welfare Centres

The evacuation locations detailed below are the likely options and provide a safe distance from the location of a likely bushfire threatening the site, however **INSTRUCTION FROM EMERGENCY SERVICES SHOULD ALWAYS BE FOLLOWED IF IT IS AVAILABLE.**

An Evacuation Diagram is provided in Section 6. This should be displayed in prominent positions throughout the Site (i.e., back of toilet doors & in the Camp Mess).

3.5.1 Primary Evacuation - Aircraft

Location: Kununurra Airport or the most suitable and safe airport as determined by the relevant Emergency Services and authorities.

3.5.2 Secondary Evacuation - 4 Wheel Drive Vehicle

Location: Kununurra town centre or the closest primary welfare centre when declared by Emergency Services

Address: Kununurra Leisure Centre, 115 Coolibah Drive, Kununurra

Route: West on the DBCA Management Access Track, east on Twelfth Street, south east on Port Warrender Road, south on Gibb River-Kalumburu Road, east on Gibb River-Wyndham Road, south on Great Northern Highway, east on Victoria Highway, north on Ivanhoe Road and east on Coolibah Drive.

Travel Time: Approximately 8 hours, 45 minutes

Location: Derby town centre or the closest welfare centre when declared by Emergency Services

Route: West on the DBCA Management Access Track, east on Twelfth Street, south east on Port Warrender Road, south on Gibb River-Kalumburu Road, south on Derby-Gibb River Road and north on Derby Highway.

Travel Time: Approximately 11 hours.

3.6 Evacuation Procedures

The following procedure outlines the steps in the event of an evacuation of the Site is required. The Chief Warden is to contact emergency services prior to initiating the Evacuation Procedure

It should be noted that a bushfire situation can change rapidly. Clear communication to personnel is required to ensure the evacuation is carried out in a safe way.

1. The Chief Warden will contact Emergency Services and take their evacuation instructions.
2. Communication of Evacuation should also occur to DBCA - Parks and Wildlife and relevant Air authorities.
3. The Chief Warden is to ensure all Staff are aware of their roles and immediately move to their designated area of responsibility.
4. The Chief Warden will maintain contact with Emergency Services. Conditions may change rapidly.
5. The Chief Warden will advise personnel through individual notification that an Evacuation is required and that there is not enough time to pack their belongs and that they must immediately evacuate.
6. Upon direct advice from the relevant authorities, the Chief Warden will advise personnel if evacuation should be by Air or Vehicle.
7. If evacuation is by four-wheel drive vehicle, the Chief Warden will direct personnel to the Welfare Centres, if they are open, if not, instruct personnel to travel to the Kununurra town centre or other location that is a safe distance from the bushfire.

3.7 Recovery

Emergency Services will need to ensure conditions within the Site and surrounding areas are safe prior to allowing anyone to return to the Site. Clean up around the Site may be required if the bushfire came in close proximity to the Site. The manager will take directions from Emergency Services with regards to any activity on the Site post a bushfire event. An assessment should be conducted prior to the return to Site and commencement of clean up activities. An example of hazards that be present post a bushfire impacting the Site is provided in the table below.

Hazards include being aware of fallen trees and smouldering logs and if water is available on site, as this is provided by DBCA. Power is supplied by the land occupier. Testing of solar panels may be required prior to use and care should be taken for any exposed wires.

It is important to note that if water was used from a domestic potable water tank by fire fighters, then the water will need to be drained and cleaned to ensure no firefighting residue contaminated the potable water.

A bushfire event can be traumatic for everyone involved. If anyone was present on site during a bushfire event, then they may require support. Lifeline, 13 11 14, is available 24/7 to help anyone struggling.

Hazard	Condition post bushfire	Actions required
Smouldering logs, debris and burnt trees that may fall at a later time		
Suitable power or exposed wires / damaged solar panels		
Contamination and insufficient amount of drinking water		
Damage to structures		
Welfare of staff		

4 Document Review Register

The Bushfire Emergency Procedures is to be review annually, prior to dry season and the Mitchell Falls Helibase Staff Camp opening.

Updated in Bushfire Emergency Procedures is required to ensure the evacuation procedures remain effective. This plan is considered a ‘living document’ and updating is required under certain circumstances, including (but not limited to) if the Site or surrounding landscape condition changes and chances in personnel.

A current version of the Bushfire Emergency Procedures is to be made available to all staff.

Review Date	Version Reviewed	Modification Required	Modifications Requested	Modifications Completed	Reviewing Officer (s)	Due Date of next review
		(Yes / No)	DATE	DATE		

5 Bushfire Evacuation Procedures Drill Register

An Evacuation Procedures drill is to be carried out annually. The drill is to be prior to the dry season and the Mitchell Falls Helispirit Staff Camps annual opening.

[illegible]

6 Bushfire Emergency Map

Bushfire Management Plan

Mitchell Falls Helibase Staff Camp, Mitchell River National Park

17 July 2025

Prepared for:
Helispirit



Limitations Statement

This report has been prepared in accordance with the Agreement between Ecosystem Solutions Pty Ltd and Helispirit (Client”). It has been solely prepared for a development at the Mitchell Falls Helibase Staff Camp, Mitchell River National Park (“Site”).

Information

In undertaking this work the authors have made every effort to ensure the accuracy of the information used. Unless otherwise stated in the report, Ecosystem Solutions Pty Ltd has not independently verified such information and cannot guarantee its accuracy or completeness.

Conclusions

Within the limitations imposed by the scope of work, preparation of this report has been undertaken and performed in a professional manner, in accordance with generally accepted practices and using a degree of skill and care ordinarily exercised by reputable bushfire consultants under similar circumstances. No other warranty, expressed or implied, is made.

Reliance

This report is solely for the use of the Client and any reliance on this report by third parties will be at such party’s sole risk. This report must only be presented in full and may not be used to support any other purpose than those set out in the report and the Agreement, except where prior written approval with comments are provided by Ecosystem Solutions Pty Ltd. All intellectual property rights in documents created by Ecosystem Solutions Pty Ltd remain the property of Ecosystem Solutions Pty Ltd.

Other parties should not rely on the report or the accuracy or completeness of any conclusions and should make their own enquiries and obtain independent advice in relation to such matters. Ecosystem Solutions Pty Ltd accepts no Liability, or responsibility whatsoever for or in respect of any use or reliance upon this report and its supporting material subsequently used by others. Please note that the contents of this report may not be directly applicable towards another organisation’s needs and may not contain sufficient information for purposes of other parties or for other uses.

Ecosystem Solutions Pty Ltd will not be liable to update or revise the report to take into account any events or emergent circumstances or facts occurring or becoming apparent after the date of this report.

Other limitations

The measures contained in this report cannot guarantee that a structure or building will not be damaged or would survive a bushfire event on every occasion. This is due to the degree of vegetation management, the

unpredictable nature of fire behaviour (knowledge in this field continues to develop) and the unpredictable nature of extreme weather conditions.

The growth, planting or removal of vegetation, poor maintenance of any fire prevention/mitigation measures, addition of structures not included in this report, or other activity can and will change the bushfire threat to all properties detailed in this report. The implementation of fire precautions will depend on the actions of the landowner or occupiers of the land, over which Ecosystem Solutions Pty Ltd has no control. Should changes be made to the Site, a new Bushfire Management Plan is required.

Ecosystem Solutions Pty Ltd accepts no Liability, including Liability for any Loss in connection with:

- a Claim, damage, or injury to property, or persons caused by fire;
- further growth, planting, or removal of vegetation on the Site;
- poor maintenance of any fire protection measures;
- additional structures not included in this assessment; or
- any other activity that may change the bushfire threat level.

The Client and owner of the Site each acknowledge that they have been made aware of the exclusions above and that such exclusion of Liability is reasonable in all the circumstances.

This report is valid for a period of two years only from the date of its issue. All BAL ratings identified in this report are indicative and are required to be verified at the time of construction of individual buildings to ensure appropriate setbacks identified in the Site/building have been achieved.

STATEMENT OF CONFORMITY - PLANNING AND DEVELOPMENT ACT 2005



Gary McMahon

B.Sc. M. Env Mgmt. PG Dip Bushfire Protection. C.EnvP, BPAD Level 3 (35078)

The signatory declares that this Bushfire Management Plan meets the requirements of State Planning Policy 3.7 and the Planning for Bushfire Guidelines.

DISCLAIMER

**All capitalised terms used in the Limitations Statement above that are not defined are defined in the Agreement between Ecosystem Solutions Pty Ltd and the Client.*

*** The limitations above are subject to any relevant rights or remedies that the Client may be entitled to under legislation, including Schedule 2 of the Competition and Consumer Act 2010 (Cth).*

Document Control

Client - Helispirit

Site - Mitchell Falls Helibase Staff Camp, Mitchell River National Park

Version	Revision	Purpose	Author	Reviewer	Submitted	
					Form	Date
Report	Rev A	Initial Report	DC (Level 1 - BPAD48409)	GM (Level 3 - BPAD35078)	Electronic (email)	2/11/2022
Report	Rev B	Change of Site Plan	DC (Level 2 - BPAD48409)	GM (Level 3 - BPAD35078)	Electronic (email)	26/02/2025
Report	Rev C	Remove vulnerable definition	DC (Level 2 - BPAD48409)	GM (Level 3 - BPAD35078)	Electronic (email)	17/7/2025

Filename: Y:\PROJECTS\221381 Mitchell Falls BMP BEEP\Reports\Mitchell Falls BMP Rev C.docx

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Appendices

Appendix A Shire of Wyndham-East Kimberley Firebreak Order and Bushfire Information

Appendix B Technical Requirements of the Planning for Bushfire Guidelines

Appendix C Bushfire Emergency Plan

SUMMARY

Site Details						
Address		Mitchell Falls Helibase Staff Camp, Mitchell River National Park				
Local Government Area		Shire of Wyndham-East Kimberley				
Development Application						
Application	Information Requirements			Occupants		
Pilot Accommodation	Bushfire Management Plan			Maximum 20		
	Bushfire Emergency Evacuation Plan					
Determined BAL - Tents						
AS 3959 Assessment Procedure	Vegetation Classification	FDI	Effective Slope	Separation Distance	BAL	
Method 1	Class B Woodland	80	Downslope >0 to 5	13 m	BAL-29	

1 PROPOSAL

1.1 Introduction

This Bushfire Management Plan (BMP) has been prepared in accordance with the Western Australian Planning Commission (WAPC) template for a BMP. An assessment of the proposal against the requirements of *State Planning Policy (SPP) 3.7* and *Planning for Bushfire Guidelines* ('Guidelines,' WAPC, Nov 2024) is included.

This Bushfire Management Plan is accompanied with a Bushfire Emergency Plan (BEP, Appendix C), to determine the best approach in the event of a bushfire. This includes considering the safety of the evacuation route and determined Bushfire Attack Level (BAL).

The purpose of this BMP and BEP is to detail the bushfire management methods and requirements that will be implemented within and around the Site to reduce the threat to occupants and fire fighters in the event of a bushfire.

1.2 Background

The proposed Mitchell Falls Helibase Staff Camp is located in the Mitchell River National Park in the Shire of Wyndham-East Kimberley (hereafter referred to as the 'Site'). The existing pilot accommodation is located within a flood zone and the Traditional Owner Group, Wunambal Gaambera have requested that this be relocated away from the flood zone.

The proposed new Site is adjacent to the Mitchell Falls Helibase and the leaseholders propose a total 20 new staff tents, over two stages, a camp mess trailer and a new ablution block (Figure 1).

The Site is located within a bushfire prone area, as declared by *State Planning Policy 3.7: Planning in Bushfire Prone Areas* (Figure 2).

The development is not considered a vulnerable development, as pilots will be familiar with their surroundings, however a BEP has been prepared due to the remote nature of the Site.

The purpose of this BMP is to detail the fire management methods and requirements that will be implemented within and around the Site to reduce the threat to staff and fire fighters in the event of a bushfire.

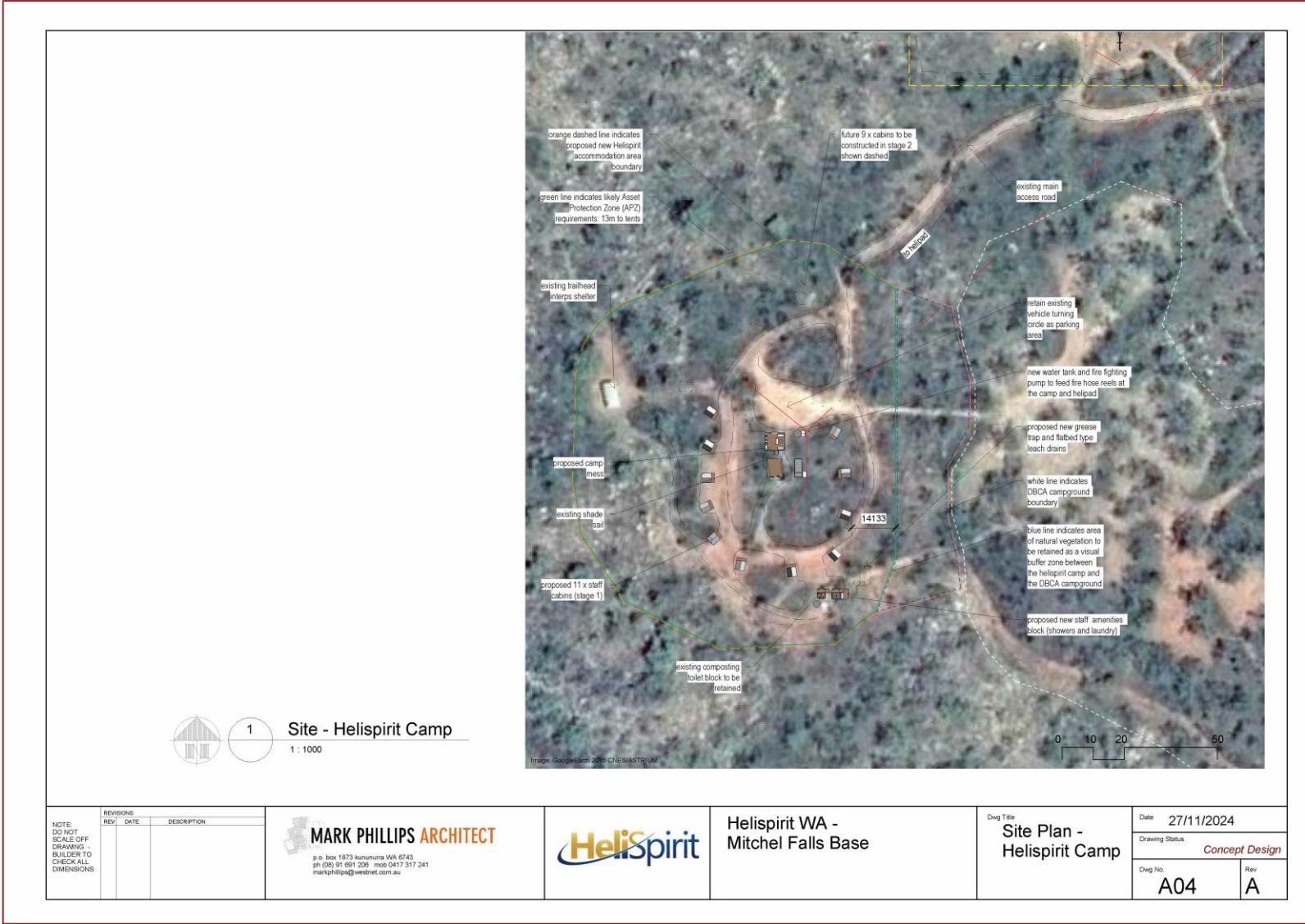


Figure 1 Proposed New Site Plan for Mitchell Falls Helibase Staff Camp



Figure 2 Extract Map of Bushfire Prone Areas Mitchell Falls Helibase Staff Accommodation approximate location shown in the blue polygon (accessed 18 October 2022)

2 Environmental Considerations

2.1 Native vegetation - modification and clearing

The Site includes remnant native scrub vegetation over spinifex. Non-native Buffel grass (*Cenchrus ciliaris*) is dominant within the area, with scattered small trees that provide shade, shelter and visual amenity for personnel.

Clearing of vegetation is required to construct the facilities within the Site. Vegetation modification is required to the standard of an Asset Protection Zones, with the removal of fine fuels to comply with the Guidelines. Any clearing or modification of native vegetation will require relevant approval or exemptions.

A basic desktop assessment for environmental values has been completed. Data provided through the Protected Matters Search Tool, accessed 24th October 2022, a number of Threatened fauna species or species habitat that could occur within the area (Table 1). The Site is also within the Mitchell River National Park, which is on the National Heritage List.

Table 1 Significant Environmental Values within 1 km of the Site (PMST Report)

Significant Environmental Values	Yes / No	If Yes, describe
Conservation Covenant	No	Nil
Waterway	No	Nil
Conservation Land	Yes	Located within Mitchell River National Park.
Threatened Ecological Communities	No	Nil
Threatened Flora	No	Nil
Threatened Fauna	Yes	There are a number of threatened fauna species or species habitat that are known to occur within the area.
Environmentally Sensitive Area	No	Nil

2.2 Re-vegetation / Landscape Plans





No active revegetation is required. Any future planting of vegetation, or failure to maintain the Asset Protection Zone to the standard detailed in this BMP, can change the BAL rating significantly.





3 Bushfire Assessment Results





3.1 Assessment Inputs





The assessment of the Site was undertaken on 6th October 2022 by BPAD Accredited Practitioners for the purpose of determining the Bushfire Attack Level in accordance with AS 3959-2018 Simplified Procedure (Method 1).





All vegetation within 150 m of the Site was classified and the slope under the vegetation determined in accordance with Clause 2.2.3 of AS 3959-2018, shown in the photos below, with map provided in Figure 3 for the current extent and Figure 4 for post development.

Plot	1	Vegetation Classification or Exclusion Clause	Class B Woodland Downslope >0 to 5 degrees
			
		Photo ID: 1	Photo ID: 2
			
		Photo ID: 3	Photo ID: 4
Description / Justification for Classification:		<p>Scattered woodland vegetation, with an average height of 8 metres over grass species including native Spinifex (<i>Triodia</i> spp.) and non-native Buffel grass (<i>*Cenchrus ciliaris</i>). This vegetation is consistent with Class D Scrub, however due to the average height, this has been classified as Class B Woodland, as a worst-case scenario.</p> <p>Vegetation modification is required within the plot, as shown in the Vegetation Classification - Post Development to establish an Asset Protection Zone surrounding the staff accommodation.</p>	

Plot	2	Vegetation Classification or Exclusion Clause	Class B Woodland Upslope/Flat
			
		Photo ID: 5	Photo ID: 6
			
		Photo ID: 7	Photo ID: 8
Description / Justification for Classification:		<p>Scattered woodland vegetation, with an average height of 8 metres over grass species including native Spinifex (<i>Triodia</i> spp.) and non-native Buffel grass (<i>Cenchrus ciliaris</i>). This vegetation is consistent with Class D Scrub, however due to the average height, this has been classified as Class B Woodland, as a worst-case scenario.</p> <p>Vegetation modification is required within the plot, as shown in the Vegetation Classification - Post Development to establish an Asset Protection Zone surrounding the staff accommodation.</p>	

Plot	3	Vegetation Classification or Exclusion Clause	Class D Scrub Downslope >0 to 5 Degrees
		<div> <div> DIRECTION 197 deg(T) 14.82143°S 125.71557°E ACCURACY 5 m DATUM WGS84 </div>  <div>Mitchell Falls2022-10-0609:11:59+08:00</div> </div>	<div> <div> DIRECTION 231 deg(T) 14.82139°S 125.71560°E ACCURACY 5 m DATUM WGS84 </div>  <div>Mitchell Falls2022-10-0609:11:02+08:00</div> </div>
		Photo ID: 9	Photo ID: 10
		<div> <div> DIRECTION 293 deg(T) 14.82191°S 125.71582°E ACCURACY 5 m DATUM WGS84 </div>  <div>Mitchell Falls2022-10-0609:05:50+08:00</div> </div>	<div> <div> DIRECTION 16 deg(T) 14.82216°S 125.71526°E ACCURACY 5 m DATUM WGS84 </div>  <div>Mitchell Falls2022-10-0609:42:15+08:00</div> </div>
		Photo ID: 11	Photo ID: 12
Description / Justification for Classification:		Scattered scrub vegetation, with a maximum height of 5 metres over grass species including native Spinifex (<i>Triodia</i> spp.) and non-native Buffel grass (<i>Cenchrus ciliaris</i>). Vegetation modification is required within the plot, as shown in the Vegetation Classification - Post Development to establish an Asset Protection Zone surrounding the staff accommodation.	

Plot	4	Vegetation Classification or Exclusion Clause	Class D Scrub Downslope Upslope/Flat
DIRECTION 264 deg(T) 14.82225°S ACCURACY 5 m 125.71600°E DATUM WGS84		DIRECTION 176 deg(T) 14.82192°S ACCURACY 5 m 125.71583°E DATUM WGS84	
			
Mitchell Falls 2022-10-06 09:01:58+08:00		Mitchell Falls 2022-10-06 09:05:39+08:00	
Photo ID: 13		Photo ID: 14	
DIRECTION 156 deg(T) 14.82216°S ACCURACY 5 m 125.71526°E DATUM WGS84		DIRECTION 149 deg(T) 14.82232°S ACCURACY 5 m 125.71667°E DATUM WGS84	
			
Mitchell Falls 2022-10-06 09:42:12+08:00		Mitchell Falls 2022-10-06 09:31:41+08:00	
Photo ID: 15		Photo ID: 16	
Description / Justification for Classification:		Scattered scrub vegetation, with a maximum height of 5 metres over grass species including native Spinifex (<i>Triodia</i> spp.) and non-native Buffel grass (<i>Cenchrus ciliaris</i>). Vegetation modification is required within the plot, as shown in the Vegetation Classification - Post Development to establish an Asset Protection Zone surrounding the staff accommodation.	

Plot	5	Vegetation Classification or Exclusion Clause	Excluded Clause 2.2.3.2 (a), (e) & (f)
		<div> <div> DIRECTION 146 deg(T) </div> <div> 14.82198°S 125.71711°E </div> <div> ACCURACY 5 m DATUM WGS84 </div> </div>  <div> Mitchell Falls </div> <div> 2022-10-06 09:16:48+08:00 </div>	<div> <div> DIRECTION 12 deg(T) </div> <div> 14.82189°S 125.71700°E </div> <div> ACCURACY 5 m DATUM WGS84 </div> </div>  <div> Mitchell Falls </div> <div> 2022-10-06 09:16:33+08:00 </div>
		Photo ID: 17	Photo ID: 18
		<div> <div> DIRECTION 178 deg(T) </div> <div> 14.82162°S 125.71647°E </div> <div> ACCURACY 28 m DATUM WGS84 </div> </div>  <div> Mitchell Falls </div> <div> 2022-10-06 08:54:58+08:00 </div>	<div> <div> DIRECTION 263 deg(T) </div> <div> 14.82182°S 125.71646°E </div> <div> ACCURACY 5 m DATUM WGS84 </div> </div>  <div> Mitchell Falls </div> <div> 2022-10-06 08:55:30+08:00 </div>
		Photo ID: 19	Photo ID: 20
		Description / Justification for Classification:	<p>Areas greater than 100 m from the Site are excluded under Cl. 2.2.3.2 (a). Low threat vegetation including the area within the site, managed in a low fuel state for amenity purposes are excluded under Cl. 2.2.3.2 (f). The vegetation within the adjoining DBCA campgrounds is managed in a low fuel state, therefore is excluded under Cl. 2.2.3.2 (f). Non-vegetated areas including roads and buildings are excluded under Cl. 2.2.3.2 (e). The Vegetation Classification - Post Development Map (Figure 4) shows Asset Protection Zones are to be managed around all staff accommodation as per the Guidelines. The Asset Protection Zone and Low fuel Zone are excluded under Cl. 2.2.3.2 (f).</p>

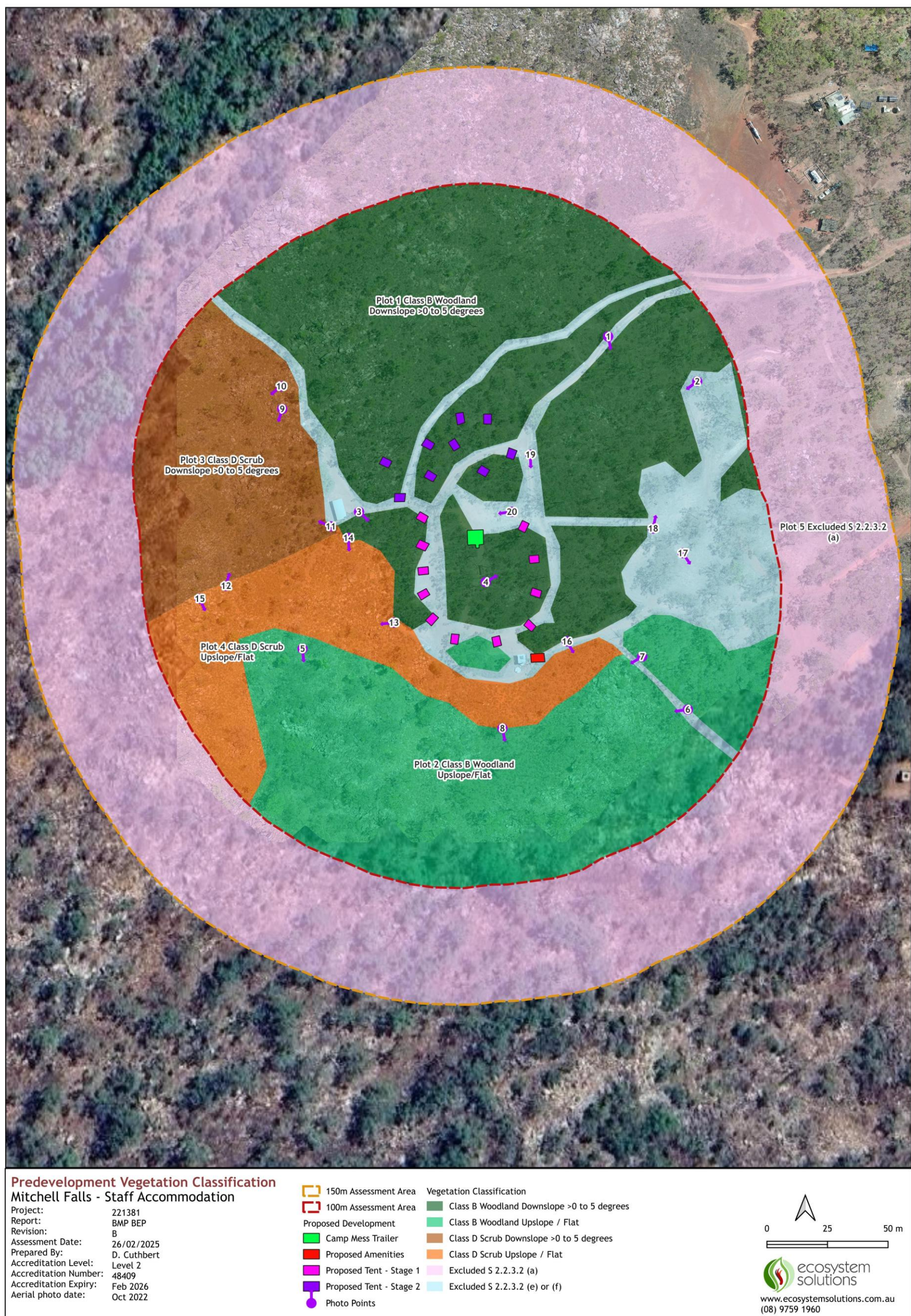


Figure 3 Vegetation Class and Effective Slope - Predevelopment



Figure 4 Vegetation Class and Effective Slope - Post development

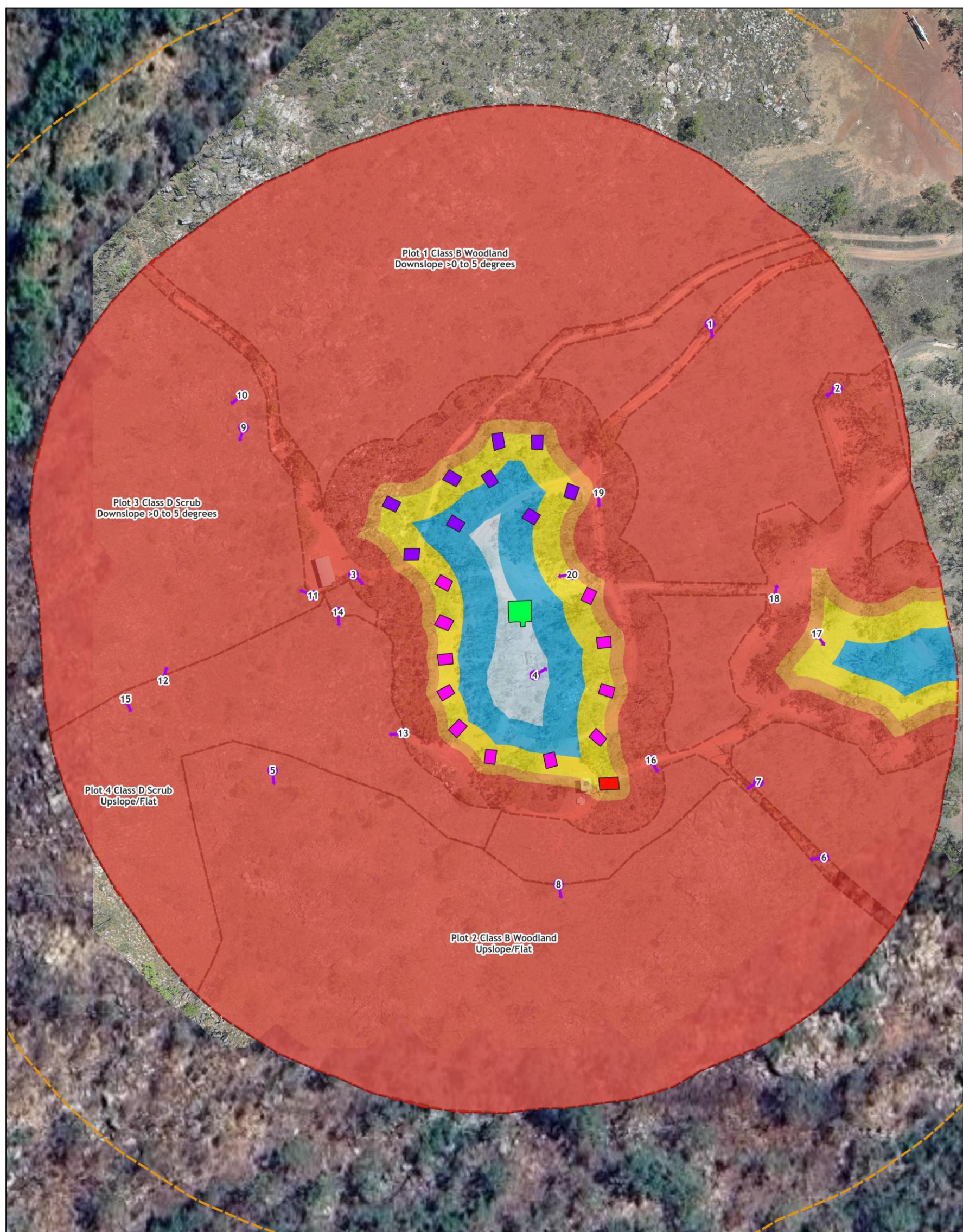
3.2 Assessment Outputs

The results from the Site assessment are provide in Table 2. The Determined Bushfire Attack Level (highest BAL) for the Site has been determined in accordance with clause 2.5 of AS3959-2018 with map provided in Figure 5 and a detailed BAL Contour map provided in Figure 6.

Table 2 Site Assessment Results - Post Development

Method 1 BAL Determination - Fire Danger Index - 80 (AS 3959-2018 Table 2.1)				
Plot	Vegetation Classification	Effective Slope Under the Classified Vegetation	Distance from Plot to Proposed Staff Accommodation, Camp Mess Trailer & Ablutions	BAL Proposed Staff Accommodation & & Ablutions
1	Class B Woodland	Downslope >0 to 5 degrees	17 m*	BAL-29
2	Class B Woodland	Upslope/Flat	14m*	BAL-29
3	Class D Scrub	Downslope >0 to 5 degrees	15m*	BAL-29
4	Class D Scrub	Upslope/Flat	13m*	BAL-29
5	Excluded Cl. (a), (e) & (f)	N/A	N/A	BAL-LOW
Determined BAL Rating				BAL-29

* These setback distances will be established and maintained, in perpetuity, to the standards of an Asset Protection Zone (Appendix B) by the lease holder.



BAL Contour Map Mitchell Falls - Staff Accommodation

Project: 221381
Report: BMP BEP
Revision: C
Assessment Date: 17/07/2025
Prepared By: D. Cuthbert
Accreditation Level: Level 2
Accreditation Number: 48409
Accreditation Expiry: Feb 2026
Aerial photo date: Oct 2022

- | | |
|-------------------------|-----------------------|
| 150m Assessment Area | Classified Vegetation |
| 100m Assessment Area | BAL-12.5 |
| Proposed Development | BAL-19 |
| Camp Mess Trailer | BAL-29 |
| Proposed Amenities | BAL-40 |
| Proposed Tent - Stage 1 | BAL-FZ |
| Proposed Tent - Stage 2 | |



Figure 5 Map of Bushfire Attack Level Assessment

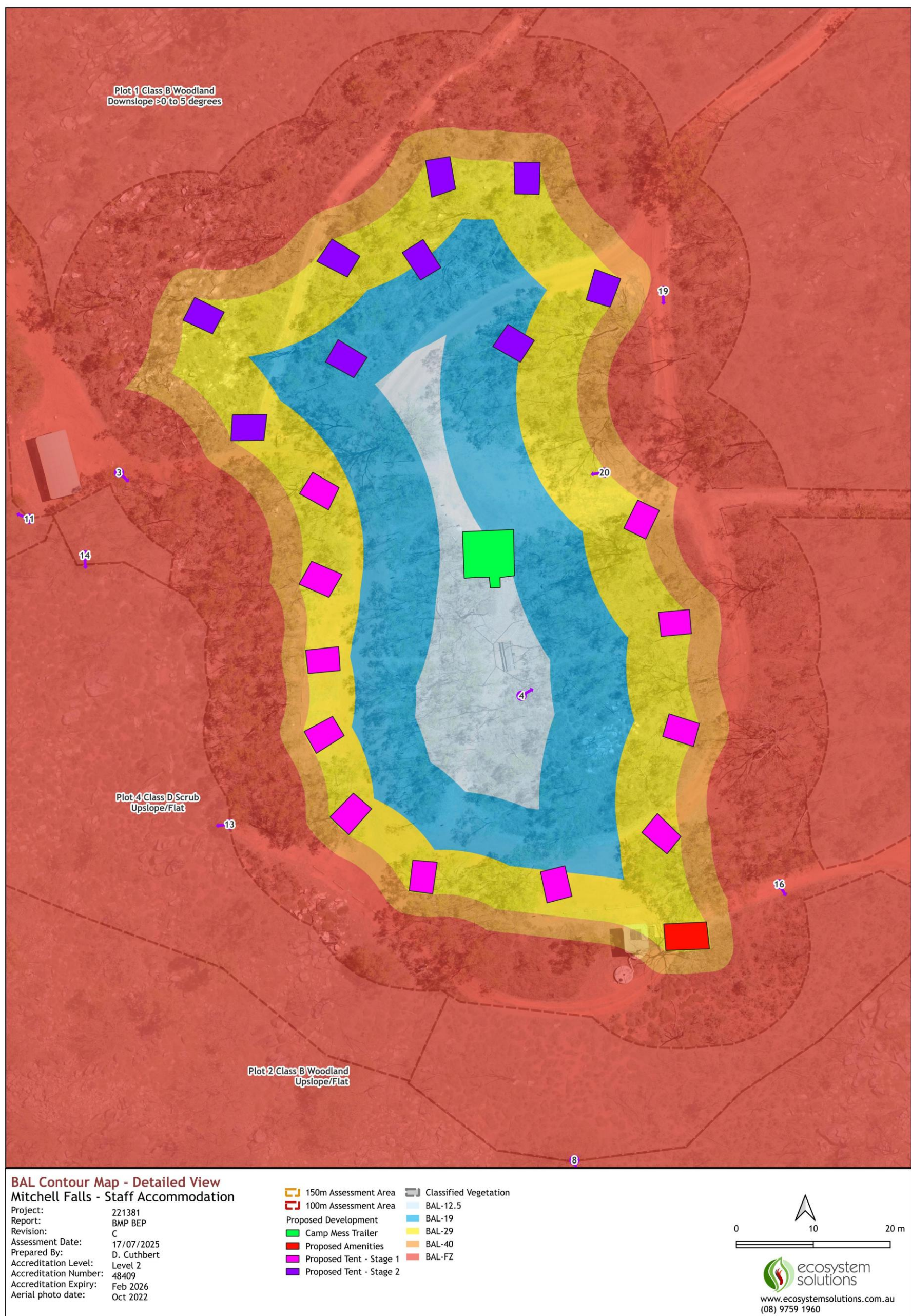


Figure 6 Map of Bushfire Attack Level Assessment - Detailed View

4 Bushfire Protection Criteria

4.1 Development - Residential

Element 1: Location	
Outcomes: Avoid broader landscapes that present an unacceptable risk to life, property and infrastructure.	
Acceptable Solution	Compliance
Area 2	Not applicable to this Site

Element 2: Siting and Design

Outcomes: Ensure siting and design solutions:

- Manage or mitigate the bushfire risk to people, property and infrastructure; and
- Avoid, or where unavoidable, minimise the clearing of native vegetation.

Acceptable Solution

Compliance

A2.1a Siting and design

Every residential habitable building achieves a radiant heat impact not exceeding 29 kW/m² (BAL-29).

A2.1b Siting in an area with a radiant heat impact exceeding 29 kW/m² (BAL-40 or BAL-FZ).

The siting of a residential habitable building, with a radiant heat impact exceeding 29 kW/m² (BAL-40 or BAL-FZ), should only be considered where:

- *the lot was created prior to December 2015; and*
- *there are demonstrated site characteristics and/or biodiversity or conservation values that prevent the achievement of a radiant heat impact not exceeding 29 kW/m² (BAL-29); and*
- *it is demonstrated that the reduction of the building footprint or a redesign to manage or mitigate the risk, is not practical or appropriate. If the provision of an APZ in accordance with acceptable solution A2.2 cannot be achieved, then the vegetation immediately surrounding the building is to be managed as defendable space in accordance with Appendix B.2, Table 9 - APZ technical requirements.*

Compliance with the acceptable solution is achieved.

An Asset Protection Zone can be installed and maintained in perpetuity to ensure that all staff tents, camp mess and ablutions are located in an area of BAL-29 or lower.

Element 2: Siting and Design

A2.2 Asset Protection Zone (APZ)

Where a residential habitable building cannot be wholly within an area with a radiant heat impact not exceeding 29 kW/m² (BAL-29) in its pre-development state, an APZ is to be provided and meet the following requirements:

- **Width:** the APZ is to be measured from any external wall or supporting post or column of the building, and of sufficient size to ensure the radiant heat impact of a bushfire does not exceed 29 kW/m² (BAL-29) in all circumstances.

- **Location:** the APZ is to be contained solely within the boundaries of the lot, except in instances where:
 - the vegetation on the adjoining lot(s) is, and will continue to be, low threat as per Clause 2.2.3.2 of AS 3959 or the requirements of Appendix B.2, Table 9 - APZ technical requirements, or an alternative standard in a local planning scheme, on an ongoing basis in perpetuity; or
 - the adjoining land is and will remain in perpetuity, non-vegetated.
- **Management:** the APZ is managed in accordance with the requirements of Appendix B.2, Table 9
 - APZ technical requirements, or an alternative standard in a gazetted local planning scheme.

The BAL Contour for the Site shows that all staff tents, camp mess and ablutions will be within areas of BAL-29 or lower with the implementation of the Asset Protection Zone.

The size of the APZ for the tents, camp mess and ablutions to maintain BAL-29 will be;

- 14 m from each tent to any Class B Woodland Upslope/Flat vegetation;
- 17 m from each tent to any Class B Woodland Downslope >0 to 5 Degrees
- 13 m from each tent to any Class D Scrub Upslope/Flat vegetation; and
- 15 m from each tent to any Class D Scrub Downslope >0 to 5 degrees.

The Staff tents, camp mess and ablutions are not permanent structures, do not contain any facilities and cannot be constructed to AS3959 standards, therefore these represent a tolerable loss in the event of a bushfire.

A2.3 Clearing of native vegetation

The development avoids, or where unavoidable, minimises the clearing of native vegetation.

An area of native vegetation is required to be modified to establish Asset Protection Zones.

-

Element 3: Vehicular Access

Outcomes: Ensure the design and capacity of vehicular access and egress provide:

- for efficient and effective evacuation to a suitable destination(s) and/or
- as a contingency measure for vulnerable land uses, as on-site shelter, where demonstrated appropriate, as a last resort.

Acceptable Solution

Compliance

A3.1 Private Driveways

There are no private driveway technical requirements (prescribed by these Guidelines) where the private driveway is within a lot serviced by reticulated water and is no greater than 70 metres in length between the most distant external part of the habitable building and the public road.

In circumstances where the above conditions are not met, the private driveway is to meet all of the following requirements:

- requirements of Appendix B.3 Table 10, column 5; and
- passing bays every 200 metres with a minimum length of 20 metres and a minimum additional carriageway width of 2 metres (i.e. the combined carriageway width of the passing bay and constructed private driveway is to be a minimum 6 metres); and
- turn-around area (Figure 30) and within 30 metres of the residential habitable building (Figure 38, Appendix A).

The internal access is approximately 75m in length and will have a 4 m trafficable surface, 6m horizontal clearance and 4.5m vertical clearance. The internal access traverses flat land, with no rises or dips, therefore the maximum grade is compliant.

The internal access is less than 200m in length, therefore passing bays are not required.

A turn around area is provided at the site.

Element 4: Water

Outcomes: Ensure that sufficient water is available to enable people, property and infrastructure to be defended from bushfire.

Acceptable Solution

A4.1 Water supply for residential habitable buildings

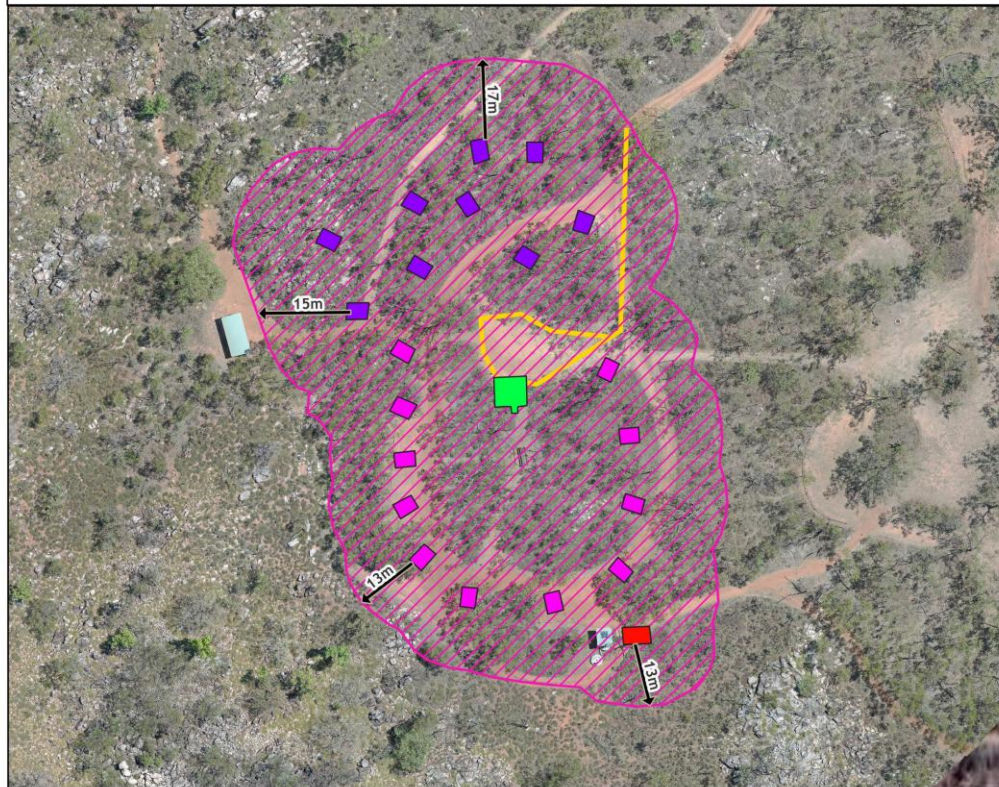
Where a reticulated water supply is existing or proposed, a hydrant connection(s) should be provided in accordance with the specifications of the relevant water supply authority. Where these specifications cannot be met, a water tank(s) should be provided in accordance with the requirements of Appendix B.4, Table 11 - Water supply dedicated for bushfire firefighting.

Compliance

There is a limited amount of drinking water available on-site, which is sourced from DBCA water tanks. The intention is for early evacuation from the site, not to actively defend, therefore, there are no additional water tanks for firefighting proposed.

In the event of a Bushfire, DBCA would be the agency first responding. DBCA Personnel have access to and are aware of the locations of the available firefighting water throughout the Mitchell River National Park.

Spatial representation of the proposed risk management measures



The minimum width for the Asset Protection Zone (APZ) for this Site is the distance required for the proposed tents, camp mess and amenities to achieve a BAL-29.

The size of the APZ for the tents, camp mess and amenities to achieve BAL-29 is:

- 14 m to any Class B Woodland Upslope/Flat;
- 17 m to any Class B Woodland Downslope >0 to 5;
- 13 m to any Class D Scrub Upslope/Flat; and
- 15 m to any Class D Scrub Downslope >0 to 5.

The internal access way will be maintained with a 4m trafficable surface, 6m horizontal clearance and 4.5m vertical clearance and 18m turning circle.

Installation and upkeep of the APZ and the internal access are the responsibility of the land occupier. The measures lists above shall be implemented prior to the occupation of the tents and shall be maintained in perpetuity.

Management Strategies Map Mitchell Falls Helicase Camp

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Prepared By: D. Cuthbert
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Aerial photo date: Oct 2022
WGS 84

Legend

- | | |
|-------------------------|-----------------------|
| Proposed Development | Onsite Shelter Area |
| Camp Mess Trailer | Internal Access |
| Proposed Amenities | Asset Protection Zone |
| Proposed Tent - Stage 1 | Distance |
| Proposed Tent - Stage 2 | |



Figure 7 Management Strategies

4.2 Outcomes Based Approach

The Site assessment was conducted in accordance with AS 3959-2018 Simplified Procedure (Method 1). The Proposal meets all the compliance requirements for the four Bushfire Protection Criteria Elements. There are outcomes based approach is proposed.

4.3 Summary of the Assessment Outcomes

This plan provides acceptable solutions and responses to the performance criteria outlined in the *Planning for Bushfire Guidelines* (WAPC, Nov 2024).

The layout and design of the development will be designed as such that the staff tents, camp mess and ablutions will not be required to be exposed to a radiant heat flux in excess of 29 kW/m² (BAL-29) provided the management as outlined in the plan is adopted.

Any class 1,2, 3 or associated 10a structures that are to be constructed shall be designed and built to conform with Australian Standards AS3959-2018:

- BAL-29 - sections 3 & 7
- BAL-19: Sections 3 & 6
- BAL-12.5: Section 3 & 5

The construction requirements of AS3959-2018 do not apply to temporary structures including tents. It is at the discretion of the Shire of Wyndham - East Kimberley as to whether construction requirement of AS3959 will be applied any other class of buildings.

A summary of the Bushfire Management Strategies to be implemented is provided in Figure 7.

5 Responsibilities for Implementation and Management of the Required Bushfire Measures

The responsibilities for the Leaseholder / Occupier and DBCA are outlined in Table 3 and Table 4, respectively.

Table 3 Leaseholder / Occupier Responsibilities

Number	Action	Due
1	Provide a copy and obtain endorsement of this Bushfire Management Plan by those with responsibility under this plan including Builders and Shire of Wyndham-East Kimberley.	Post planning approval
2	Establish and maintain Asset Protection Zones (APZ) to the dimensions and standard stated in the BMP.	Prior to building licence & Ongoing
3	Maintain the internal access and turn around area to the standards stated in the BMP.	Post planning approval & Ongoing
4	Ensure all future buildings the Leaseholder / Occupier has responsibility for, are designed and constructed in full compliance with: (a) the requirements of the <i>WA Building Act 2011</i> and the bushfire provisions of the Building Code of Australia (BCA) as applicable to WA; and (b) with any identified additional requirements established by this BMP or the relevant local government.	Ongoing
5	Ensure no habitable buildings are constructed or tents are located in areas above a BAL-29 rating.	Ongoing

6	Be aware updating the Bushfire Management Plan may be required to ensure that the bushfire risk management measures remain effective. Bushfire plans do not expire and are a 'living document.' Updating is required in certain circumstances, including (but not limited to) if site conditions change, if further details are required at subsequent development stages or to reflect new technologies or methodologies in best practice bushfire risk management ('Guidelines').	Ongoing
7	Review the Emergency Evacuation Plan, Appendix E	Annually
8	Conduct Seasonal and Daily (during the fire season) preparations (refer to Appendix E).	Annually / Daily
9	Advise any future developers that the Site is within a designated bushfire prone area and the development is to comply with the Bushfire Management Plan.	Ongoing

Table 4 *DBCA Responsibilities*

Number	Action	Due
1	Maintain vehicle access routes within the Mitchell River National Park to the required surface condition and clearances.	Ongoing
2	Maintain water supply and associated fittings within the Mitchell River National Park.	Ongoing

Appendix A Shire of Wyndham-East Kimberley Firebreak Order and Bushfire Information

Appendix B Technical Requirements of the Planning for Bushfire Guidelines

Appendix C Bushfire Emergency Plan