

# Application for Development Approval

## Temporary Workers Accomodation

Lot 7 Greenbushes-Grimwade Road,  
North Greenbushes

Shire of Bridgetown-Greenbushes



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August 2022



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Document ID: CAT GRE GE/ 220808 Development Application Report

Issue	Date	Status	Prepared by;		Approved by:	
			Name	Initials	Name	Initials
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## 1.0 INTRODUCTION

B&J Catalano (**Catalano**) are currently contracted by Talison Lithium to construct the Tailings Storage Facility No. 4 (**TSF4**) tailings dam (Cell 1 & 2) located at the southern end of the Talison Lithium mine site in Greenbushes.

Approximately 76 staff are employed by Catalano to conduct the tailings dam construction and require temporary workers accommodation to maintain a local workforce over the next two years. Whilst some accommodation has been secured locally, a temporary workers' camp is necessary to accommodate approximately 61 employees while operations are underway.

A temporary workers camp is proposed over a vacant industrial site at Lot 7 Greenbushes-Grimwade Road, North Greenbushes (deposited Plan 45240) (**subject site**) adjacent to the Parkside Timber Greenbushes Mill. A location map is included as **Figure 1**. Catalano has secured a lease over Lot 7 from Parkside Development No. 2 Pty Ltd for this purpose. The camp proposes to accommodate a 61 person mobile facility, complete with water, power and sewer supplies, and some self contained facilities including dining and gymnasium.

Approval is sought for three years to accommodate sufficient time for Catalano to conduct its Tailings Dam Construction. Retention of a local workforce has benefits to the Talison's operation and will benefit the Shire through the retention of 76 employees located within the town and the associated benefits with maintaining a local workforce.

The Shire's assistance is requested to expedite consideration of the camp on the basis that the current temporary camp located at the Talison facility will be closing in September 2022. A completed and signed Development Application Form is included at **Annexure 1**.

## 2.0 BACKGROUND

### 2.1 About Talison's Operations

Talison's Lithium mining and processing operation is located directly south and adjacent to the town of Greenbushes. It is approximately 250 kilometres south of Perth and Fremantle, a major container shipping port, and 90 kilometres south east of the port of Bunbury, a major bulk handling port, in the south-west of Western Australia.

Talison Lithium and its predecessor companies have been producing lithium from the Greenbushes lithium operations since 1983 and Greenbushes is recognised as the longest continuously operated mining area in Western Australia.

Tin mining commenced in the Greenbushes area in 1888 and mining of tantalum commenced in the 1940s. Initial development of the ore body at Greenbushes started in 1983 with the first lithium processing plant commissioned in 1985. Since that time the lithium processing facilities have been expanded several times to produce a range of lithium concentrates.

The attractive location of the Lithium operations has enabled Talison to recruit and retain a talented and stable workforce who generally live in the local and/or South West Region.

### 2.2 Processing

The Greenbushes mining operations has three processing plants, one producing technical grade lithium concentrates and two producing chemical grade lithium concentrate. Ore containing Li<sub>2</sub>O is

fed into the processing plants which upgrade the lithium mineral, using gravity, heavy media, flotation and magnetic processes, into a range of lithium concentrates for bulk and bagged shipments.

Various operating modes are used in the processing plants to produce a variety of different lithium concentrates to meet specific customer requirements. Talison's products and processes have the international BVQI (Quality) Certification. Construction of a second chemical grade lithium plant (CGP2) was completed and commissioned in 2019.

Wherever possible Talison has prioritised local procurement of services and personnel for our Greenbushes Expansion Project.

### 2.3 Talison's Future

The Greenbushes operations has undergone a number of expansions over the past 30 years to maintain its position as a major supplier of lithium mineral concentrates. In 2017 Talison Lithium commenced construction of a second large chemical grade lithium processing plant (CGP2) which was officially opened in 2019. This project will more than double production capacity at the mine to 1.34mtpa of lithium concentrates.

Planning is now underway for the construction of a third lithium processing plant and a tailings re-treatment facility at Greenbushes. The expansion of production facilities will enable Talison Lithium to supply the downstream processing industry being established in Western Australia by Tianqi Lithium Corporation/IGO Limited JV and Albemarle Corporation.

### 2.4 Relationship with B&J Catalano Pty Ltd.

B&J Catalano (**Catalano**) are currently contracted by Talison to construct TFS4 tailings dam (cell 1 & 2). The project is anticipated to last for the next two years.

Catalano's staff and workers are presently being accommodated at the Talison camp. However, Catalano's has been advised by Talison that due to the mine expansion that Catalano will need to source alternate accommodation by the end of September 2022.

Catalano have been in discussion with the local Bridgetown motels and can secure 15 rooms which will be predominantly for Catalano's management team. However, this leaves Catalano's workforce of 61 persons who, without local accommodation, would need to commute to and from Bunbury every day for the next two years.

This is not desirable and raises concerns on safety and fatigue management issues, as well as minimises the benefit of having a local workforce which provides economic benefit to the Shire and the betterment of the Talison operations generally. The avoidance of long daily commutes is also desirable and more sustainable as it mitigates the impacts of additional travel, CO2 emissions, road and vehicle wear and tear.

To avoid the need to commute, Catalano has secured a lease over Lot 7 Greenbushes Grimwade Road (deposited Plan 45240) to accommodate a 61 person mobile camp. The lease is for two years with a one year option to accommodate sufficient time for Catalano to conduct its Tailings Dam Construction. Temporary approval is therefore sought for the workers accommodation for three years.



**Figure 1: Location Plan**

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### 3.0 SITE DETAILS

#### 3.1 Subject Site

The particulars of the subject site are described in **Table 1**:

**Table 1: Site Details**

Lot Number	Area	Deposited Plan	Volume	Folio
7	10.447ha	45240	2600	775

Copies of the Certificate of Title and the Deposited Plan are included in **Annexure 2**.

The subject site comprises a large parkland cleared paddock. An Aerial Photo and Site Plan have been included as **Figures 2** and **3**. The risk of bushfire has been assessed and is discussed in further depth in Section 5.1.

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#### 3.2 Location and Context

The subject site is located at Lot 7 Greenbushes-Grimwade Road, North Greenbushes 3km to the north of the Town of Greenbushes and 240km south of the Perth Central Business District. The site is in close proximity to the Talison's Lithium facility which is located to the south of the Greenbushes townsite.

The subject site is adjacent to Parkside Timbers Greenbushes mill who own the subject land to the west across Greenbushes-Grimwade Road. The site is bounded by industrial lots to the northwest and southeast which formed part of the previous industrial use, with a densely vegetated vacant special rural area adjoining its eastern and south eastern boundaries.

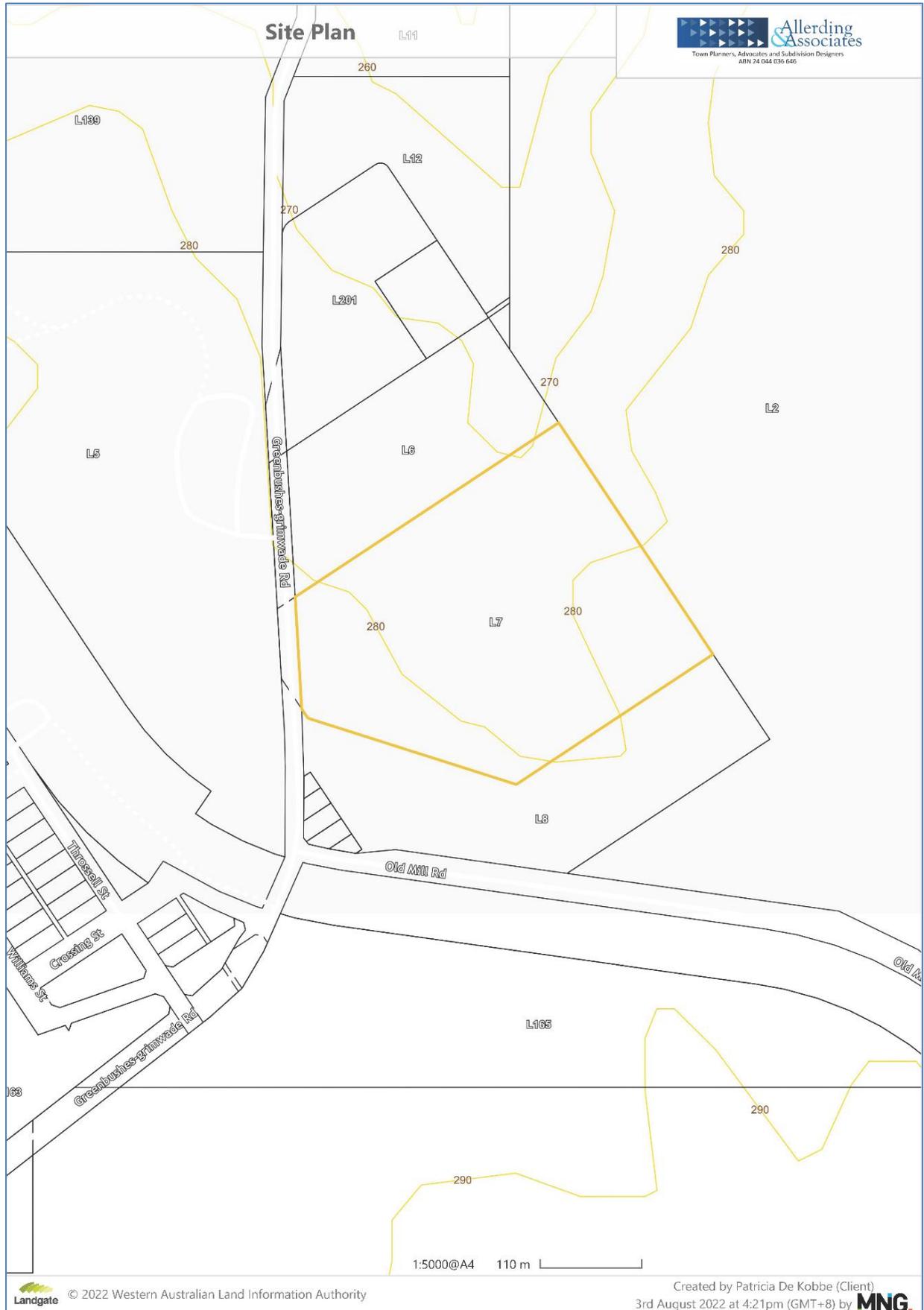
Access to the site is via an existing crossover from Greenbushes-Grimwade Road.

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#### 3.3 Land Use

The subject site has formerly been cleared and contains buildings and structures associated with a former industrial use and an existing dwelling. No clearing will be undertaken for the proposed development.





**Figure 3: Site Plan**

## 4.0 PROPOSED DEVELOPMENT

As mentioned in Section 2, Talison seeks to accommodate 61 workers on a temporary basis to avoid the need to avoid lengthy commuting trips to and from Bunbury. The camp will include sleeping, cooking, dining, laundry, office and recreational facilities for Talison workers. This proximity of the accommodation camp to the Talison Lithium plant will obviate the need for long trips to and from work and the associated health and safety benefits for the workers.

### 4.1 Camp Layout

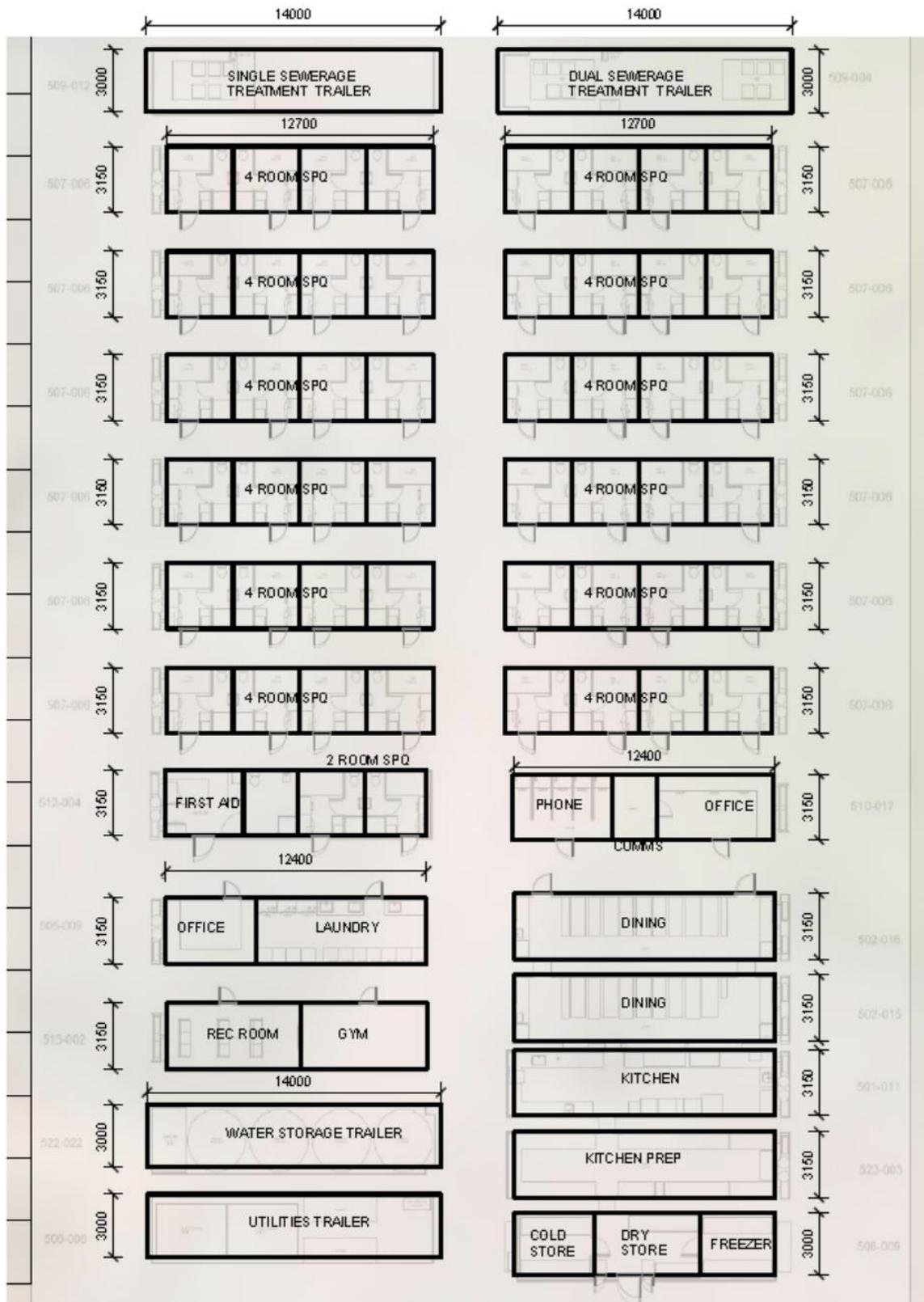
The typical layout of the proposed Rapid Camps Australia worker's camp is depicted in **Figure 4** and the development plans are included in **Annexure 3**. A detailed description information for the worker's accommodation camp is included as **Annexure 4**.

The camp will include the following transportable buildings/trailers to the dimensions depicted in **Figure 4** (noting that **Figure 4** is indicative only and does not represent the full extent of development proposed. Refer to **Figure 5** for full extent of proposed development):

- One (1) 14m x 3m single sewerage treatment trailer;
- One (1) 14m x 3m dual sewerage treatment trailer;
- Fifteen (15) 12.7m x 3.15m trailers, each containing four accommodation units which include ablution facilities;
- One (1) 12.4m x 3.15m trailer containing a First Aid station and two (2) further accommodation units;
- One (1) 12.4m x 3.15m trailer containing office and communications facilities;
- One (1) 12.4m x 3.15m trailer containing office facilities and a laundry room;
- One (1) 12.4m x 3.15m trailer containing a recreation room and gym;
- Two (2) 12.4m x 3.15m trailers containing dining facilities;
- One (1) 12.4m x 3.15m trailer containing kitchen cooking facilities;
- One (1) 12.4m x 3.15m trailer containing facilities for food preparation;
- One (1) 12.4m x 3.15m trailer containing food storage facilities;
- One (1) 14.00 x 3.00m water storage trailers; and
- One (1) 14.00 x 3.00m utilities trailers.

Planning approval is also sought for the following:

- A 46 bay light vehicle car park located to the north of the trailer camp; (refer to **Figure 5** which depicts the proposed site plan and the development plans included in **Annexure 3**); and
- A loading area located to the west of the trailer camp.



SITE PLAN  
SCALE 1:150



NOT FOR CONSTRUCTION

Figure 4: Typical Worker Accommodation Layout



**Figure 5: Site Plan of Proposed Development**

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## 4.2 Access and Parking

Access to the site will be undertaken via the existing crossover to Greenbushes-Grimwade Road. Parking for light vehicles will be provided to the north of the accommodation camp where 46 sealed and marked light vehicle parking bays will be provided.

## 4.3 Deliveries

A designated loading area will be located to the west of the campsite. The delivery area will accommodate the parking and manoeuvring of vans to enable all such vehicles to access and egress the site in forward gear.

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## 5.0 CONSIDERATION UNDER THE PLANNING FRAMEWORK

### 5.1 State Planning Policy 3.7: Planning in Bushfire Prone Areas

State Planning Policy 3.7: Planning in Bushfire Prone Areas (**SPP3.7**) was introduced in 2015 to be considered in combination with supporting Guidelines for Planning in Bushfire Prone Areas (**the Guidelines**) and Part 10A of the Deemed Provisions of the *Planning and Development (Local Planning Schemes) Regulations 2015 (the Regulations)* to address bushfire risk management in Western Australia.

As part of the bushfire management process, the Department of Fire and Emergency Services (**DFES**) provides a mapping system which identifies Bushfire Prone Areas. Designation of an area as being bushfire prone reflects the potential of bushfire to affect that site. This acts as a mechanism for initiating further assessment in the planning and building processes. Further assessments include a Bushfire Attack Level (**BAL**) assessment and a Bushfire Management Plan (**BMP**). The portion of the subject site within which the temporary workers accommodation is proposed is designated as bushfire prone as depicted in **Figure 6**. A BMP for the temporary workers accommodation has been prepared by a BPAD Level 2 practitioner and is included as **Annexure 5**.

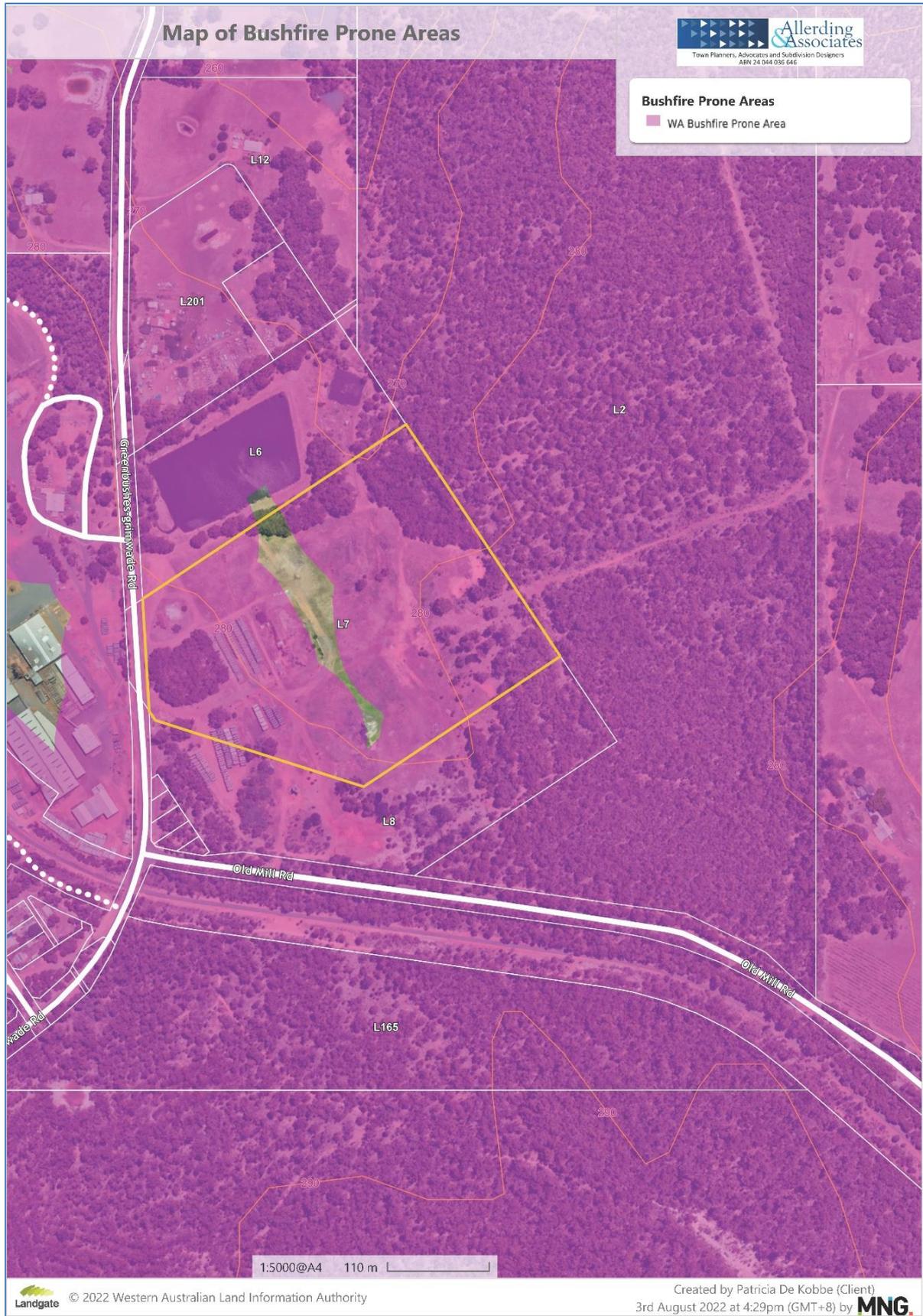
### 5.2 Guidelines for Planning in Bushfire Prone Areas (version 1.4)

The Guidelines for Planning in Bushfire Prone Areas (version 1.4) (**the Guidelines**) specify the requirements to be met at each stage of the planning process and ensure that the necessary bushfire protection measures are incorporated into development.

In accordance with Section 5.4 of the Guidelines, development applications in bushfire prone areas are to be accompanied by the following:

- *a BAL Contour Map or a BAL assessment;*
- *the identification of any issues arising from the BAL Contour Map or BAL assessment; and*
- *an assessment against the bushfire protection criteria contained within these Guidelines demonstrating compliance within the boundary of the development application.*

To demonstrate compliance with the above requirements, a BMP for the temporary workforce accommodation has been prepared by a BPAD Level 2 practitioner and is included as **Annexure 5**.



**Figure 6: Map of Bushfire Prone Areas**

### 5.3 Shire of Bridgetown Greenbushes Local Planning Scheme No. 4

The subject site is zoned Industrial under the Shire of Bridgetown Greenbushes Local Planning Scheme No. 4 (LPS4). An extract from the relevant LPS4 Scheme Map is included as **Figure 7**.

The proposed development proposal can reasonably be classified as a Worker's Accommodation use which is defined in the *Planning and Development (Local Planning Schemes) Regulations 2015* (Model Scheme Text) as:

*“premises, which may include modular or relocatable buildings, used -*

*(a) primarily for the accommodation of workers engaged in construction, resource, agricultural or other industries on a temporary basis; and*

*(b) for any associated catering, sporting and recreation facilities for the occupants and authorised visitors”*

A Worker's Accommodation use is not included in Table 1 – Zoning Table or Schedule 1- Interpretations within LPS4.

Clause 3.2.5 provides as follows with regard to uses not referred to in the Zoning Table:

*3.2.5 If the use of land for a particular purpose is not specifically referred to in the Zoning Tables and cannot reasonably be determined as falling within the interpretation of one of the use classes shown, the Council may:*

*a) determine that the use is not consistent with the objectives and purposes of the particular Zone, and is therefore not permitted; or*

*b) determine by absolute majority that the proposed use is consistent with the objectives and purposes of the Zones and thereafter follow the 'SA' procedures of **Clause 5.2** in considering an application for Planning Consent.*

LPS4 does not include objectives for the Industrial zone. However, Schedule 1 Interpretations includes a general definition for Industry as follows:

**Industry** - means the carrying out of any process in the course of trade or business for gain, for and incidental to one or more of the following:

- a) the winning, processing or treatment of minerals;*
- b) the making, altering, repairing, or ornamentation, painting, finishing, cleaning, packing or canning or adapting for sale, or the breaking up or demolition of any article or part of an article;*
- c) the generation of electricity or the production of gas;*
- d) the manufacture of edible goods;*
- e) and includes, when carried out on land upon which the process is carried out and in connection with that process, the storage of goods, any work of administration or accounting, or the wholesaling of goods resulting from the process, and the use of land for the amenity of persons engaged in the process; but does not include:*
  - i. the carrying out of agriculture;*
  - ii. site work on buildings, work on land;*
  - iii. in the case of edible goods the preparation of food for sale from the premises;*
  - iv. panel beating, spray painting or motor vehicle wrecking.*

With regard to the above definition for Industry, the Worker’s Accommodation use can be considered to be consistent with the objectives and purposes of the Industrial zone because it involves the incidental use (accommodation) to processing of minerals (lithium) by Talison. Further, it involves the use of land for the amenity of persons engaged in an industrial process, this being the manufacture of lithium.

It is important to note that the provision of workers’ accommodation in close proximity to the Talison operations will provide environmental benefits through the reduction of fuel emission into the atmosphere reduced road vehicle use and associated wear and tear. Further, the avoidance of long vehicle commuting trips to and from Bunbury will produce social benefits in the form of reduced health and safety risks, and an opportunity to retain a local workforce that can provide improved economic benefits for the Town.

### 5.3.1 Development Requirements

Table 2 below sets out the development standards applicable to the proposed development.

Development Standard	Response
Clause 4.7 Building Setbacks: Industrial zone – 9m	The proposed development will be set back in excess of 100m from Greenbushes-Grimwade Road.
4.10.1 <b>Standard of Development</b>  Notwithstanding that a proposed development conforms in all other respects with any provision of the Scheme or any by-law in force, Council may at its discretion, refuse to grant approval if it considers that such development would by its siting, design, construction or materials result in a significant deterioration of the landscape and amenity of the general locality.	The proposed development will be located in an industrial zone and will comprise single storey accommodation and support relocatable buildings and trailers which will be set back in excess of 100m from the street frontage. Accordingly, no deterioration of the landscape and amenity of the general locality is anticipated.

### 5.4 Shire of Bridgetown-Greenbushes Town Planning Policy 16 – Demountable Buildings Policy

The Shire’s Town Planning Policy 16 – Demountable Buildings Policy (**TP16**) sets out the preferred locational criteria for demountable buildings which include skid mounted transportable units, single men’s quarters, dongas and light weight pre-fabricated buildings.

The policy statement under Clause 2 of TP16 states that the Shire can consider permitting demountable buildings in the Industrial zone (amongst others) if the proposed buildings are not visually intrusive on surrounding properties. In considering whether a proposed building would be appropriate the Shire will consider:

- *whether adequate screening (vegetation etc.) exists to screen the proposed dwelling from adjacent properties; and*
- *whether the appearance of the proposed dwelling is adequate.*

In relation to the above planning criteria, it is noted that:

- The proposed temporary workers accommodation is located on an industrial site which has historically been utilised for the open-air storage of goods associated with the adjacent timber mill. Therefore, the proposed temporary structures will not result in any net loss to the visual character or qualities of the locality.
- As the proposal is temporary in nature (two to three years duration), the site is not proposed to be landscaped as it is likely to be returned to its former use at the conclusion of the project.
- There are only a limited number of residential properties nearby which utilise Greenbushes-Grimwade Road and those properties are all entirely screened from the subject site by existing vegetation around the boundaries. The proposed accommodation will be visible from Greenbushes-Grimwade Road for passers-by, however the activities will be set in the context of the timber mill and will therefore not represent a use which is out of keeping with its context.

For these reasons, the proposed temporary workers accommodation is appropriate and specifically for workers accommodation for an industrial purpose capable of approval under the current planning framework.

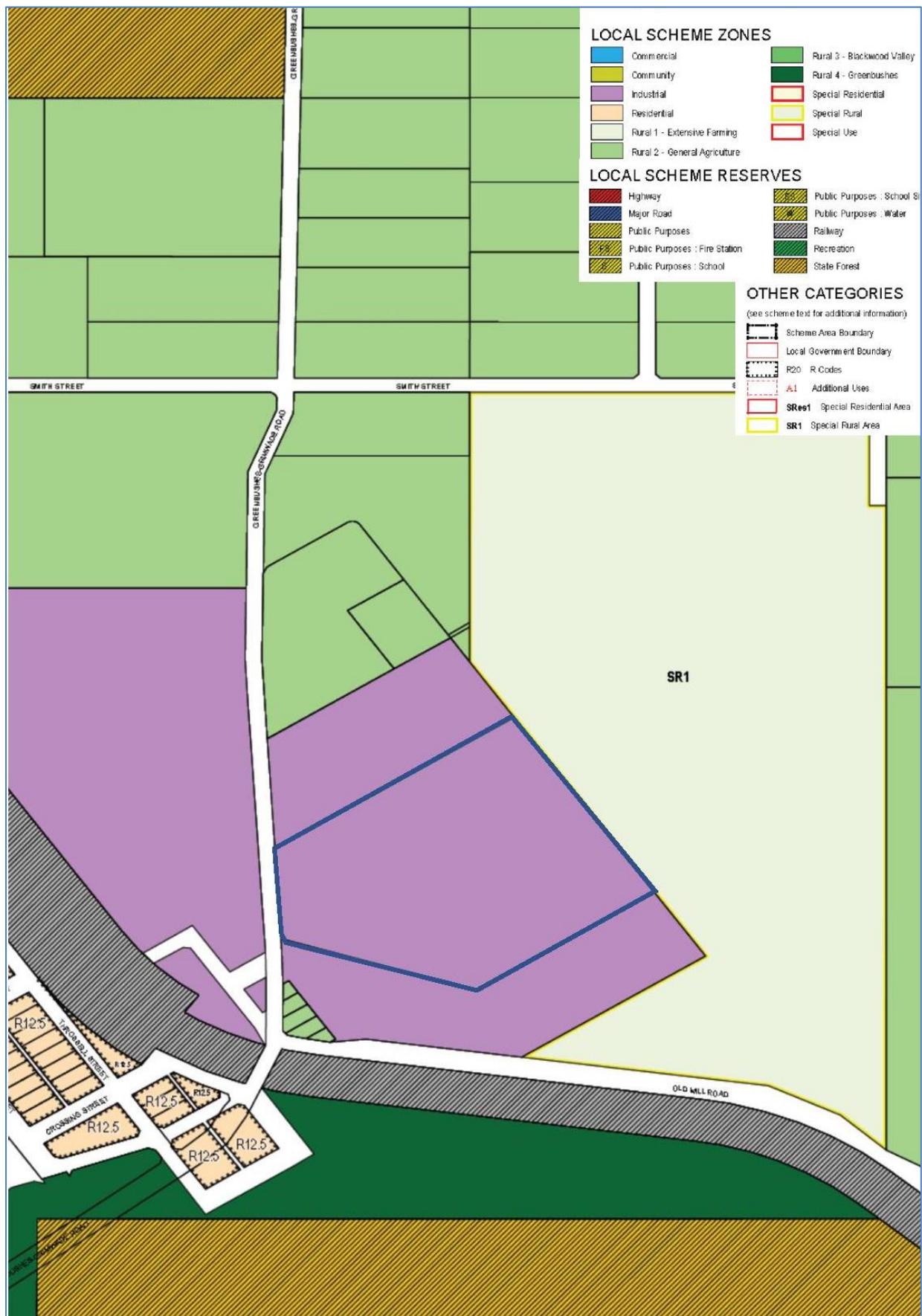


Figure 7: LPS4 Scheme Map Extract

## 5.5 Planning and Development (Local Planning Schemes) Regulations 2015

The *Planning and Development (Local Planning Schemes) Regulations 2015* (**the Regulations**) have introduced a set of deemed provisions within Schedule 2 that automatically form part of LPS4. In particular, Clause 67 of Schedule 2 deals with matters to be considered by Local Government and include the following key provisions relevant to this application in **Table 2**:

**Table 2: Matters to be Considered**

Matters to be considered	Comment
a) <i>the aims and provisions of this Scheme and any other local planning scheme operating within the Scheme area;</i>	As outlined in Section 5.3, the proposed development is consistent with the intent on the Industrial zone and complies with the development requirements for the zone by providing workers accommodation specifically for alternate industrial use.
b) <i>the requirements of orderly and proper planning including any proposed local planning scheme or amendment to this Scheme that has been advertised under the Planning and Development (Local Planning Schemes) Regulations 2015 or any other proposed planning instrument that the local government is seriously considering adopting or approving;</i>	The proposal will be complementary with the existing Industrial zone and is consistent with the purpose and intent of the applicable planning framework.  Obviating the need for long commutes will provide environmental benefits through the reduction of fuel emissions and will minimise road wear and tear. Social benefits by improving Talison employees' health and safety, and economic benefits by maintaining local employment base in closer proximity to the Town.
c) <i>any approved State Planning Policy</i>	A response to State Planning Policy 3.7 has been provided in Section 5.1 and a Bushfire Management Plan forms part of this application
d) <i>any environmental protection policy approved under the Environmental Protection Act 1986 section 31(d)</i>	NA
e) <i>any policy of the Commission</i>	Not Applicable
f) <i>any policy of the State;</i>	Not Applicable
fa) <i>any local planning strategy for this Scheme endorsed by the Commission</i>	While no Local Planning Strategy is available for this Scheme, for the reasons described in Section 5.3, the proposed is consistent with the intent of the Industrial zone.
g) <i>any local planning policy for the Scheme area</i>	The proposed development has been assessed against the Shire's Town Planning Policy 16 –

Matters to be considered	Comment
	Demountable Buildings Policy and found to be generally consistent with its provisions.
h) <i>any structure plan, activity centre plan or local development plan that relates to the development;</i>	Not applicable
i) <i>any report of the review of the local planning scheme that has been published under the Planning and Development (Local Planning Schemes) Regulations 2015;</i>	Not applicable
j) <i>in the case of land reserved under this Scheme, the objectives for the reserve and the additional and permitted uses identified in this Scheme for the reserve;</i>	Not applicable
k) <i>the built heritage conservation of any place that is of cultural significance</i>	Not applicable
l) <i>the effect of the proposal on the cultural heritage significance of the area in which the development is located;</i>	Not applicable
m) <i>the compatibility of the development with its setting including the relationship of the development to development on adjoining land or on other land in the locality including, but not limited to, the likely effect of the height, bulk, scale, orientation and appearance of the development;</i>	The proposed development will be located within an Industrial zoned area, which predominantly comprises industrial structures and stores. The single storey trailers which will form part of the accommodation camp will be compatible with its surroundings in terms of height, bulk, scale and appearance. The workforce accommodation is directly linked to industrial employment.
n) <i>the amenity of the locality including the following –</i> <i>(i) environmental impacts of the development;</i> <i>(ii) the character of the locality;</i> <i>(iii) social impacts of the development;</i>	The development is temporary in nature and is not expected to generate any environmental impacts as all services are self contained.  The workers' camp will be set back by more than 100m from Greenbushes-Grimwade Road within an Industrial zone and is not expected to generate any adverse effects on the character of the locality.  The workers' accommodation is expected to generate social benefits by providing accommodation close to work and maintain a local workforce in the Town.

Matters to be considered	Comment
o) <i>The likely effects of the development on the natural environment or water resources and any means that are proposed to protect or to mitigate impacts on the natural environment or water resource.</i>	No impacts on the natural environment or water resources are anticipated.
p) <i>whether adequate provision has been made for the landscaping of the land to which the application relates and whether any trees or other vegetation on the land should be preserved;</i>	The development is temporary for a period of three years and no landscaping is proposed. No clearing is proposed for the proposed accommodation camp.
q) <i>The suitability of the land for the development taking into account the possible risk of flooding, tidal inundation, subsidence, landslip, bushfire, soil erosion, land degradation or any other risk</i>	No risks of flooding, tidal inundation, subsidence, landslip, bushfire, soil erosion, land degradation or any other risk have been identified.
r) <i>the suitability of the land for the development taking into account the possible risk to human health or safety;</i>	While no risks to human health and safety are anticipated, the proposal will make a positive contribution to the occupational health and safety of Talison employees by avoiding the need for long commuting trips.
s) <i>The adequacy of -</i> <i>i. the proposed means of access and egress from the site; and</i> <i>ii. arrangements for the loading, unloading, manoeuvring and parking of vehicles;</i>	All vehicle will access and egress the site from the existing crossover to Greenbushes-Grimwade Road which is sufficiently wide to accommodate both light and commercial delivery vehicles. Parking for light vehicles is provided onsite. A loading area is proposed which will accommodate the loading, unloading and manoeuvring of commercial delivery vehicles.
t) <i>the amount of traffic likely to be generated by the development particularly in relation to the capacity of the road system in the locality and the probable effects on traffic flow and safety;</i>	Greenbushes-Grimwade Road and the surrounding road network is capable of accommodating the traffic likely to be generated by the development.
u) <i>The availability and adequacy for the development of the following-</i> <i>i. public transport services;</i>	No public transport services are available.

Matters to be considered	Comment
ii. <i>public utility services;</i> iii. <i>storage management and collection of waste;</i> iv. <i>access for pedestrians and cyclists (including end of trip storage, toilet and shower facilities);</i> v. <i>access by older people and people with disability;</i>	Utility services will be provided within the accommodation camp as described in Section 6.2. All waste will be collected by private contractors. Access for pedestrians, cyclists, older people, and people with a disability are not relevant considerations in relation to this proposal.
v) <i>the potential loss of any community service or benefit resulting from the development other than potential loss that may result from economic competition between new and existing businesses;</i>	None identified.
w) <i>the history of the site where the development is to be located</i>	The development is located on a site which previously accommodated a general industrial use.
x) <i>the impact of the development on the community as a whole notwithstanding the impact of the development on particular individuals;</i>	None identified.
y) <i>any submissions received on the application;</i>	To be announced
za) <i>the comments or submissions received from any authority consulted under clause 66;</i>	To be announced
zb) <i>any other planning consideration the local government considers appropriate;</i>	None identified

## 6.0 PLANNING CONSIDERATIONS

### 6.1 Mapped Constraints

A detailed investigation of a range of mapped constraints has been undertaken and it has been verified that no mapped constraints exist on the subject site in regard to the following:

- Acid Sulphate Soils;
- Contamination;

- Food fringes and floodplains;
- Geomorphic Wetlands;
- Road and rail noise;
- Threatened Ecological Communities;
- Aboriginal Heritage; and
- Local Heritage.

A majority of the subject site has been identified as being Bushfire Prone. This is discussed in more detail in Sections 5.1 and 5.2. A Bushfire Management Plan is included as **Annexure 5**.

## 6.2 Services and Facilities

The subject site is traversed by overhead power cables. Notwithstanding, the electricity supply to the workers' accommodation camp will be provided by generators located on the utilities trailer.

Water will be delivered to the site and stored in large containers in the water storage trailers.

Sewage will be treated via the single and dual sewerage treatment units located on the sewerage treatment trailers. Treated wastewater will then carted and disposed of offsite within an accredited waste facility.

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## 7.0 CONCLUSION

On behalf of B&J Catalano Pty Ltd we seek Council's support for the installation of a worker's accommodation camp on Lot 7 Greenbushes-Grimwade Road.

The proposal is both capable and appropriate for approval noting that:

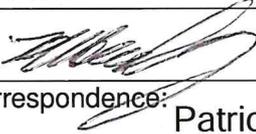
- The proposal follows the intent of the local planning framework by providing works accommodation for industrial uses. It is designed to operate in accordance with State Bushfire legislation;
- The proposal is the necessary solution to the lack of available accommodation to accommodate the required number of employees. Providing local accommodation will remove occupational health and safety impacts to Talison's employees and provide economic and social benefits to the Town.
- The proposed operation will remove the need for long vehicular commuting trips and the associated fuel emissions into the environment;
- The Site is well suited to the proposed development given its size and proximity to Talison's operations; and
- The accommodation camp will be located in industrial zoned land and will not result in any undue or adverse effects on the visual amenity of the locality.

We therefore seek Council's favourable consideration and support of this proposal to enable approval for the installation of the proposed Accommodation camp.

Annexure 1  
Development Application Form

## DEVELOPMENT APPLICATION FORM

OWNER DETAILS		
Names(s): Parkside Development No. 2 Pty Ltd		ABN (if applicable): 37 009 828 040
Postal Address: 34 Margaret Street, Ayr		State/Post Code: QLD 4807
Home Phone:	Work Phone: 07 44312600	Mobile Phone:
E-mail Address: ptapiolas@parkside.biz		Fax:
Owner's Signature(s): 		Date: 08/08/2022
<small>Digitally signed by Peter Tapiolas DN: cn=Peter Tapiolas, o=Parkside, ou, email=ptapiolas@parkside.biz, c=AU Date: 2022.08.08 10:33:23 +10'00'</small>		
Contact person for correspondence: Peter Tapiolas		

APPLICANT DETAILS (IF DIFFERENT FROM OWNER)		
Name(s): Allerding and Associates		ABN (if applicable):
Postal Address: 125 Hamersley Road, Subiaco		State/Post Code: WA 6008
Home Phone:	Work Phone: 9382 300	Mobile Phone:
E-mail Address: patricia@allerdingassoc.com		Fax:
Applicant's Signature: 		Date: 8/8/22
Contact person for correspondence: (must be signed) <b>Patricia de Kobbe</b>		
The information and plans provided with this application may be made available by the local government for public viewing in connection with the application. <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		

PROPERTY DETAILS		
Location No(s):	Lot No(s): 7	Street No(s)(urban or rural): NA
Diagram or Plan No: 45240	Certificate of Title Volume/Folio: 2600/775	Title Encumbrances (if any): See certificate of title
Street Name: Greenbushes-Grimwade Road		Suburb/Locality: North Greenbushes
Nearest Street Intersection: Old Mill Road		Total Land Area (m <sup>2</sup> or ha): 10.4477 ha

PROPOSED DEVELOPMENT			
Nature of development: Works <input type="checkbox"/> Use <input type="checkbox"/> Works and Use <input checked="" type="checkbox"/>			
Description of proposed works and/or land use: <b>Workers' Accommodation</b>			
Nature of any existing buildings and/or use: <b>Vacant</b>			
Is an exemption from approval claimed for part of the development? No <input checked="" type="checkbox"/> Yes <input type="checkbox"/> If yes, is the exemption for: Works <input type="checkbox"/> Use <input type="checkbox"/>			
Description of exemption claimed (if relevant):			
Approximate cost of proposed development: \$250,000		Estimated time of completion: November 2022	
Services known to be available:	Y	N	Development already commenced or completed?  * Y <input type="checkbox"/> N <input checked="" type="checkbox"/> * Penalty fees may apply
Electricity	x		
Scheme water		x	
Reticulated sewer		x	
Stormwater drainage			
Sealed road access			

OFFICE USE ONLY:	Date received: _____	Shire Reference: _____
Checked (Officer's Initials): _____	Fee received: _____	Plans Attached: Y <input type="checkbox"/> N <input type="checkbox"/>

- The signature of the owner(s) is required on all applications. This application will not proceed without that signature. For the purposes of signing this application and owner includes the persons referred to in the Planning and Development (Local Planning Schemes) Regulations Schedule 2 clause 62(2).
- All registered proprietors must sign the application form. If signing on behalf of a Company authority must be signed by: one director of the company accompanied by the company seal; or two directors of the company; or one director and one secretary of the company, or one director if a sole proprietorship company. Applications made by either private owners or companies that have recently changed names must provide supporting documentation showing the change of name.
- Applications made by prospective purchasers under contract of sale must be accompanied by a letter of consent from the current owners of the property giving the purchaser authority to make the application; or a copy of the Landgate transfer lodgement approval to make the application; or contract(s) of sale or offers and acceptances expressly including a provision of consent by the Vendor to the application proposed.
- The executor(s) of a deceased estate must provide evidence of grant of probate.
- Applications made by a State government agency must be signed by an 'authorised officer,' clearly stating their name and position held.
- An 'authorised officer' of Landgate must sign applications made on Crown Land.
- Where the Crown Land has been vested in a local/government authority, an 'authorised officer' of that local authority can sign the application form, stating his/her full name and position held.

## DEVELOPMENT APPLICATION CHECKLIST

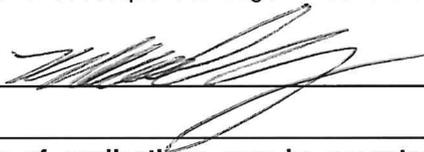
*All sections to be ticked ✓ where relevant or crossed X where not applicable*

- Development Application Form**
- All required sections completed
- Signature of Applicant
- Signature(s) of each Owner/Registered Proprietor(s) of subject land
- Covering Letter** (may be waived for compliant or minor proposals)
- Addressed to the Chief Executive Officer
- Thoroughly, accurately and truthfully outlines details of the proposal
- If applicable, justification why the proposal does not comply with requirements of the Residential Design Codes (see Part 3 of the R-Codes), relevant Town Planning Scheme or Shire Policy
- Development Application Checklist** (this form)
- All required section completed
- Signature of Applicant
- Site Plan x 2 (A4 or A3 only)**
- For Residential zoned development see application information matrix in Part 3 of R-Codes
- Scale not less than 1:100 or 1:200 (Residential, Commercial, Industrial), 1:1000 (Rural)
- Full Address: Lot No, Street No. (urban or rural), Street Name and Suburb/Locality
- North Point and Scale Bar
- Natural features (e.g. streams, lakes, rock outcrops)
- Setbacks of all structures from lot boundaries or building envelope
- Stream or Landscape Protection Area
- Full site area and all lot boundaries
- Dimensions of all boundaries (Rural and Special Rural zones exempt)
- Site area by survey
- Location of any easements and services (ie. power lines, water lines, service lines)
- Vehicle entrance and exit points
- Vehicle access ways and parking bays, all pedestrian areas
- Location and description of open space areas, landscaped areas, types of screening or fencing
- Proximity of adjoining buildings and their uses
- Existing and proposed buildings and structures
- Structures and vegetation proposed to be removed
- Height Contours and Spot Levels
- Finished Ground Levels and Finished Floor Levels
- Height of Cut and Fill and Location of Embankments
- Onsite effluent disposal system
- Floor Plan x 2 (A4 or A3 only)**
- For Residential zoned development see application information matrix in Part 3 of R-Codes
- Scale not less than 1:100
- Finished Floor Levels
- Proposed and existing buildings
- All windows, doors and other entryways
- Use of buildings clearly indicated

- Elevations x 2 (A4 or A3 only)**
  - For Residential zoned development see application information matrix in Part 3 of R-Codes
  - Scale not less than 1:100
  - All elevations (views)
  - Proposed buildings and signage
  - Windows, doors and other entryways
  - Materials, colours and finishes of exterior construction
  - Natural and Finished Ground Levels (cross section)
  - Wall and Roof Heights (above natural and finished ground levels)
  - Dimensions of Patios, Verandahs and Balconies, etc
- Heritage Issues**
  - Desktop assessment of Aboriginal Heritage Issues (any findings)
  - Desktop assessment of Post-Settlement Heritage Issues (any findings)
- Bushfire Issues**
  - Desktop assessment of property located within bushfire prone area
  - Desktop assessment of development site located within bushfire prone area
  - Bushfire Attack Level (BAL) Assessment (including BAL Basic)
  - Bushfire Management Plan/Statement
- Development Application Fees**
  - Refer to Town Planning section of the Shire's Schedule of Fees and Charges

By signing the development application form and the development application checklist, the applicant acknowledges, without prejudice, the accuracy and content of the forms, plans and supporting information submitted with or subsequent to lodgement of the development application.

Applicant's Signature: \_\_\_\_\_



Date: 8/8/22

**Faxed or email copies of applications may be accepted initially however an original copy bearing all signatures is required, unless otherwise agreed.**

**Incomplete applications may be returned or suspended pending receipt of all required information. Additional information not stipulated above may also be required.**

**The information is required as part of the assessment process for an application and compliance with the checklist does not necessarily mean that a proposal will be supported.**

Annexure 2  
Certificate of Title

WESTERN



AUSTRALIA

REGISTER NUMBER <b>7/DP45240</b>	
DUPLICATE EDITION <b>1</b>	DATE DUPLICATE ISSUED <b>18/10/2005</b>

**RECORD OF CERTIFICATE OF TITLE**  
UNDER THE TRANSFER OF LAND ACT 1893

VOLUME **2600** FOLIO **775**

The person described in the first schedule is the registered proprietor of an estate in fee simple in the land described below subject to the reservations, conditions and depth limit contained in the original grant (if a grant issued) and to the limitations, interests, encumbrances and notifications shown in the second schedule.

*BGRoberts*  
REGISTRAR OF TITLES



**LAND DESCRIPTION:**

LOT 7 ON DEPOSITED PLAN 45240

**REGISTERED PROPRIETOR:**  
(FIRST SCHEDULE)

PARKSIDE DEVELOPMENT NO 2 PTY LTD OF 34 MARGARET STREET AYR QLD 4807  
(T O308163 ) REGISTERED 18/12/2019

**LIMITATIONS, INTERESTS, ENCUMBRANCES AND NOTIFICATIONS:**  
(SECOND SCHEDULE)

1. \*O308164 MORTGAGE TO BLUELEAF CORPORATION PTY LTD OF COMO WA 6152 REGISTERED 18/12/2019.

Warning: A current search of the sketch of the land should be obtained where detail of position, dimensions or area of the lot is required.  
\* Any entries preceded by an asterisk may not appear on the current edition of the duplicate certificate of title.  
Lot as described in the land description may be a lot or location.

-----END OF CERTIFICATE OF TITLE-----

**STATEMENTS:**

The statements set out below are not intended to be nor should they be relied on as substitutes for inspection of the land and the relevant documents or for local government, legal, surveying or other professional advice.

SKETCH OF LAND: DP45240  
PREVIOUS TITLE: 1247-191  
PROPERTY STREET ADDRESS: NO STREET ADDRESS INFORMATION AVAILABLE.  
LOCAL GOVERNMENT AUTHORITY: SHIRE OF BRIDGETOWN-GREENBUSHES

NOTE 1: DUPLICATE CERTIFICATE OF TITLE NOT ISSUED AS REQUESTED BY DEALING L570848

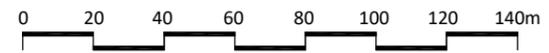
Annexure 3  
Development Plans



# SITE MAP

LOT 7 GREENBUSHES - GRIMWADE ROAD  
NORTH GREENBUSHES

SHIRE OF BRIDGETOWN - GREENBUSHES



SCALE: 1:2000  
ORIGINAL PLAN SIZE: A3

### LEGEND

 SUBJECT LAND

JOB CODE:  
CAT GRE ZB

DATE:  
25.08.2022



**Allering & Associates**

Town Planners, Advocates  
and Subdivision Designers

Annexure 4  
Description of Workers Accommodation



*Proposal for*  
**61 Person Trailer Mounted Mobile Camp**

**202□**

## General Camp Specifications / inclusions

Camp is manufactured as per the following specifications unless otherwise specified

ITEM	MATERIAL	SIZE
Trailers	Tandem axle, container lock skeletal	45'
Trailers	Tri axle, container lock skeletal	45'
Base	180 UC 20.9 kg/m	12.4 x 3.15 m
Base Cross Members	RHS welded	75 x 50 x 2mm
Flooring	Tongue & groove plywood	2700 x 1200 x 19mm
Floor Covering	Commercial grade vinyl (2mm)	All floor & 100mm up walls
Wall Frames	RHS Welded	75 x 50 x 2mm
Insulation—Walls	Foil faced 75mm R1.8	75mm
Insulation—Roof	Foil faced 75mm R2.9	75mm
Wall Sheeting—Internal	Colorbond—Surfmist	0.55mm
Wall Sheeting—External	Maxi Rib—Surfmist	0.42mm
Ceiling Sheeting	Maxi Rib—Surfmist	0.42mm
Roof Sheeting	Zink Trimdec	0.42mm
External Doors	Fabricated steel	40 x 40 x 1.6mm frame—750 x 2030 Powder coated 1.6mm zincanneal skin
Internal Doors	Standard timber (Int. quality)	720x2030mm
Electrical	All electrical wiring to AS3001 and includes flex cabling to the generator switch board.	
Emergency Lighting	Included to illuminate walkways & carpark areas in the event of power failure	
Alarm system	Addressable central alarm system (fire, smoke, man trap in freezer)	
Walkways	Slide out walkways	

### Internal fixtures constructed to following specifications

ITEM	MATERIAL	SIZE
Cupboards & Shelving	Powder coated Zincanneal	1.55mm
Bench Tops (office, bedroom & laundry)	Timber with Laminex surface	32mm
Bench Tops (kitchen & prep room)	Stainless Steel (food grade)	1.2mm

All units are ready to plug into power and water supply.

**Note:** Equipment and appliances that may be specified in this document are subject to change according to availability. If unavailable, an item of similar specification will be substituted.



Rapid has been Servicing clients in WA providing high quality camp and construction solutions since 2017.

<https://www.rapidcamps.com.au/mobile-camp-specialists>

Rapid provide end to end camp solutions including:

- Turnkey design, supply and Installation of both mobile and permanent assets
- Project Management
- Dry hire of camp assets
- Wet hire of camp assets (with our partners)
- Repairs and Maintenance
- Exploration and remote project Support

All works can be project managed by Rapid with cost transparency and predetermined deliverables.



## CAMP FEATURES

- Modern
- Robust
- Built in Australia for Australian conditions
- Camps are built for Rapid Deployment
- All Spares are readily available in the Region
- Designed to last 15 to 20 years subject to proper logistics and maintenance of the Camp
- Skid or trailer mounted
- Built to your specifications or to our engineered, proven designs
- Split system reverse cycle AC's
- Plug-and-play, electricity, water and waste
- Satellite TV ready
- Data and communication ready
- Fully insulated
- Remote operation
- Minimal site impact
- All electrical to AS 3000 and 3001
- All plumbing to AS 3500





Laundry Unit

Dining Room Unit



Kitchen Unit



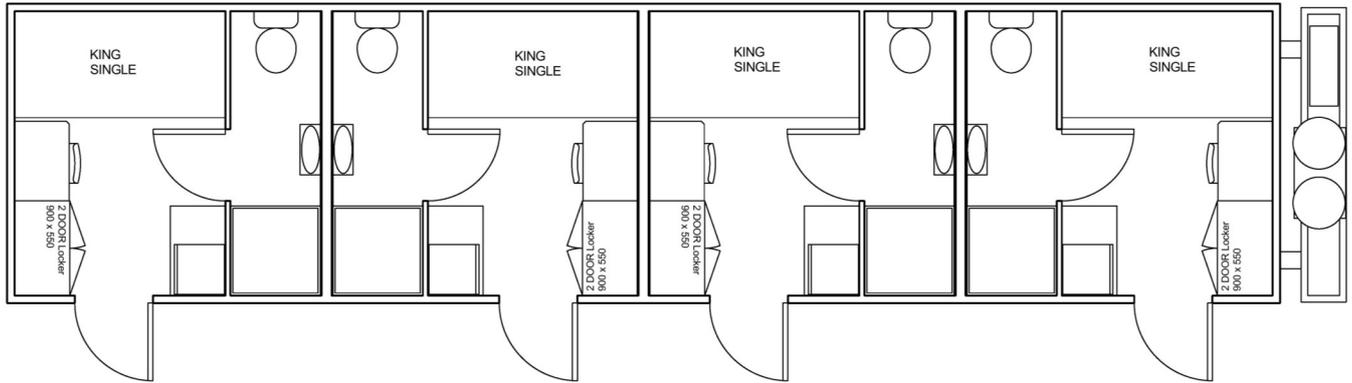
Gymnasium

Sewerage Processing Trailer



Utility Unit

**507-006TM: 4 Person Sleeper with Individual Ensuities**



Unit comes with all plumbing including waste water transfer pump, plumbing under building to transfer pump, 2 x 125 litre 3.6kw quick recovery hot water systems, 1.5" suction hose to Waste Treatment Unit and 1.5" water supply hose ready to plug in. Building includes slide out walkways & aluminum stairs which are stored under the trailer for transport.

Building dimensions are 12.7m x 3.15m on a 45' tandem axle trailer

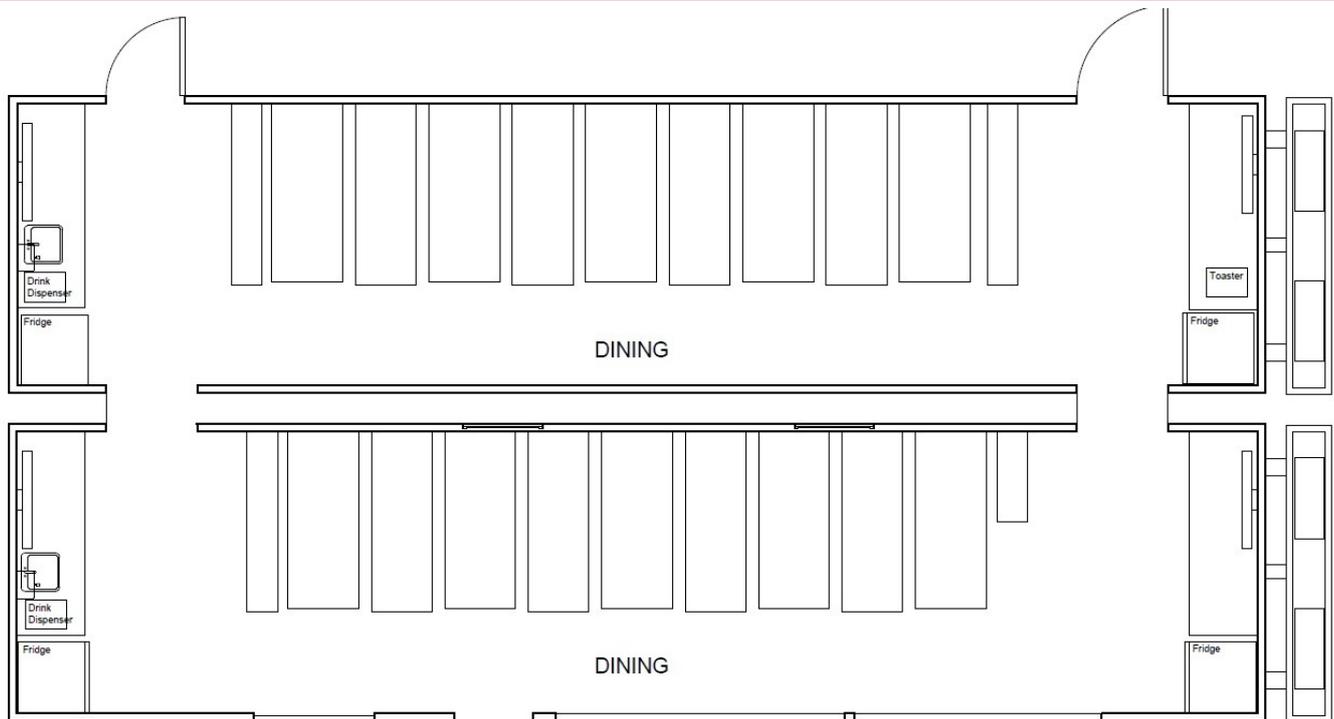
**Each bedroom includes:**

1	King Size Single Bed
1	TV LCD 19" with DVD player
1	2 door locker cupboard with hanging space & shelving
1	Workstation desk and chair
1	Split system air conditioner
1	Battery back up smoke detector linked to all rooms in unit
1	Addressable back to base smoke detection alarm
1	Room light
1	LED bedside reading light
1	100ltr fridge
1	Towel rail

**Each ensuite includes:**

1	Porcelain toilet with plastic cistern
1	900 x 900 fibreglass shower cubical with water saving shower head, mixer tap and curtain.
1	Exhaust fan
1	Vanity sink and mirror
1	Toilet roll holder
2	Coat hooks

## 502-017TM: Double Dining Room



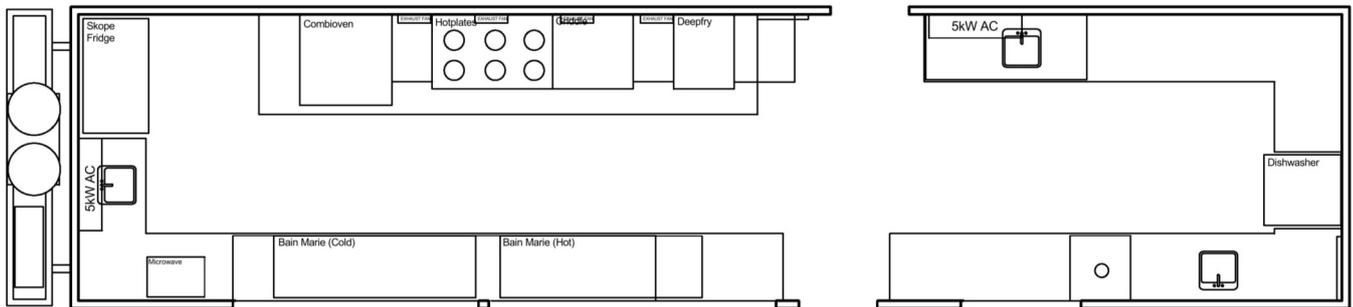
Units come with all plumbing including waste water transfer pump, plumbing under building to transfer pump, 1.5" suction hose to SPU and 1.5" water supply hose ready to plug in. Building includes slide out walkways and aluminum stairs which are stored under trailer for transport.

Building dimensions are 12.4m x 3.15m on a 45' tandem axle trailer.

### Dining rooms include:

10	Dining tables
8	Double row storage seats
3.5	Single row storage seats
2	Single pan stainless sink
2	Twin tub drink dispenser
4	External hand wash basins
4	Domestic grade upright refrigerators
8	Split system air conditioners
4	40" LCD TV's
2	Commercial style conveyer toaster
4	Bug zappers

## 501-011TM: Kitchen



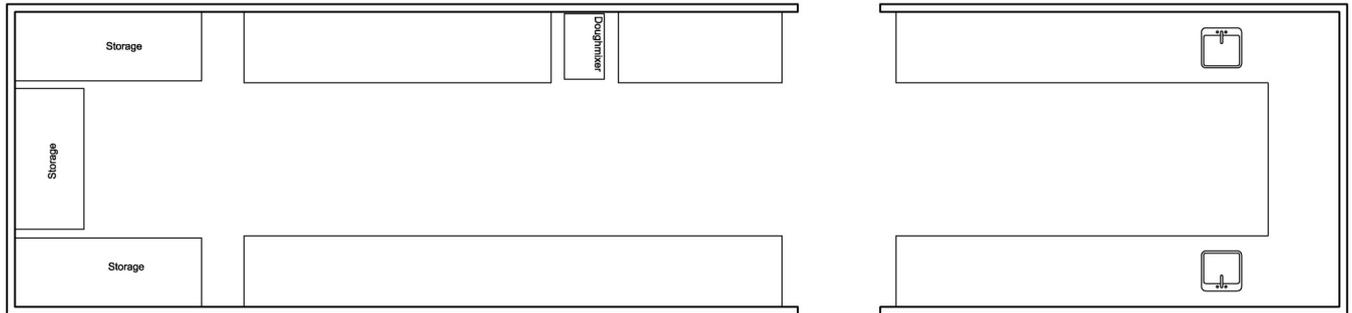
Unit comes with all plumbing including waste water transfer pump, plumbing under building to transfer pump, 2 x 125 litre 3.6kw quick recovery hot water systems, 1.5" suction hose to SPU and 1.5" water supply hose ready to plug in.

Building dimensions are 12.4m x 3.15m on a 45' tandem axle trailer.

### Kitchen Includes:

1	Cold 6 tray bain marie
1	Hot 6 tray bain marie
1	Stainless deep pot wash sink
2	Single pan stainless sinks
1	Scope glass front double door upright refrigerator
1	Commercial dishwasher
1	Microwave (wall mounted)
1	Servery bench with under bench storage cupboards
1	6 burner hot plate / oven
1	Griddle plate
1	Deep fryer
1	Combi oven
2	Split system air conditioners
1	3 draw cutlery drawer
1	Stainless steel range hood (compliant AS 1668.2)
1	Single door food waste cupboard with stainless bench top chute

## 523-003TM: Kitchen Preparation



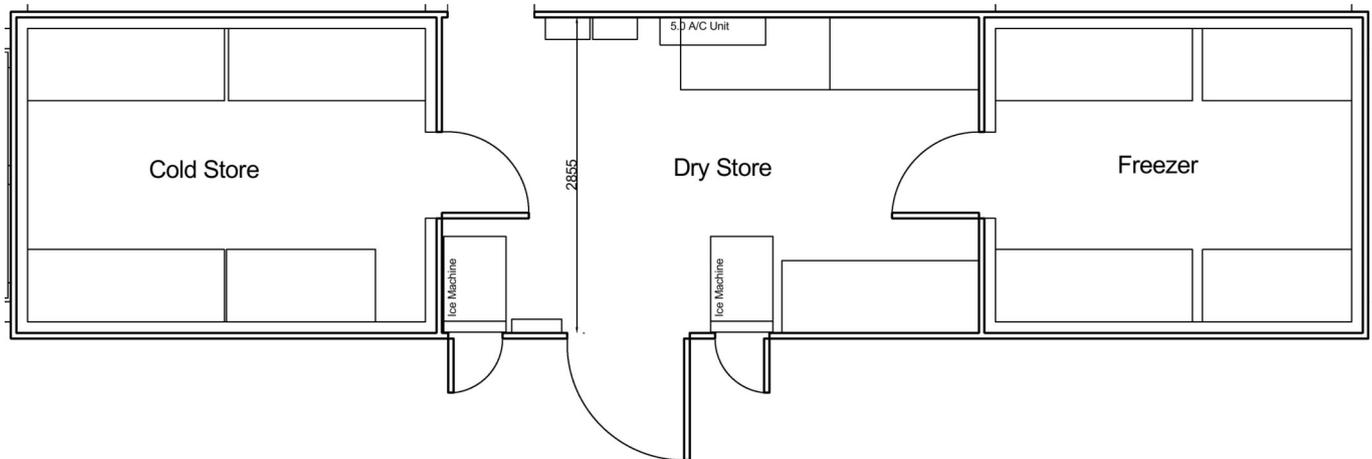
Unit comes with all plumbing including waste water transfer pump, plumbing under building to transfer pump, 2 x 125 litre 3.6kw quick recovery hot water systems, 1.5" suction hose to SPU and 1.5" water supply hose ready to plug in.

Building dimensions are 12.4m x 3.15m on a 45' tandem axle trailer.

### Kitchen preparation includes:

3	Food storage shelves <i>(complete with food grade storage containers)</i>
1	Commercial grade dough mixer
3	Straight stainless food preparation benches
1	U Shaped stainless food preparation bench
2	Single pan stainless sinks
3	Split system air conditioners

## 508-009TM: Cold Store / Dry Store / Freezer



Unit comes with all plumbing including waste water transfer pump, plumbing under building to transfer pump, 1.5" suction hose to Waste Water Treatment Unit and 1.5" water supply hose ready to plug in. Ice machines and replenishment door is supplied with slide out walkway and aluminum stairs which store under trailer for transport

Building dimensions are 12.4m x 3m on a 45' tandem axle trailer.

### Freezer includes:

1	Chiller unit
4	Food storage shelves <i>(complete with food grade storage containers)</i>
1	Man trap alarm & emergency exit device
1	Condenser drain has S bend and cam lock fitting with cap for transport

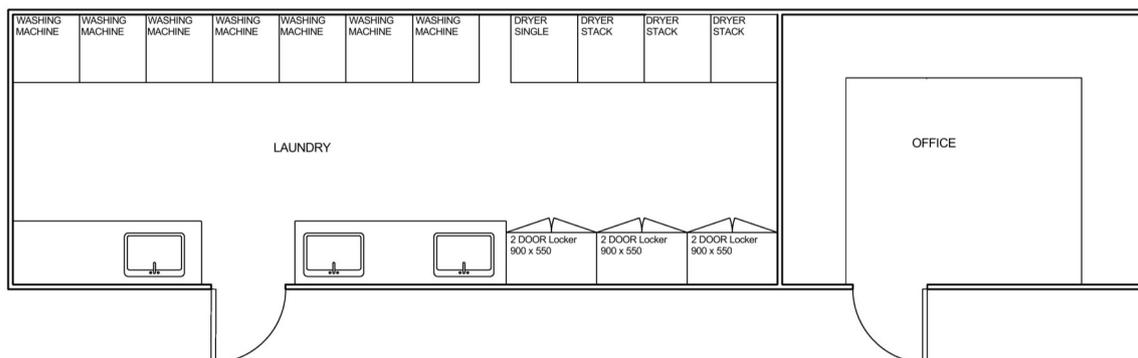
### Cold Store includes:

1	Chiller units
4	Food storage shelves <i>(complete with food grade storage containers)</i>
1	Man trap alarm & emergency exit device
1	Condenser drain has S bend and cam lock fitting with cap for transport

### Dry Store includes:

1	1200 wide door for supply replenishment & external loading platform
1	Split system air conditioner
3	Food storage shelves <i>(complete with food grade storage containers)</i>
2	External door access ice machines <i>(with drains plumbed into main waste system)</i>

## 505-009TM: Laundry / Office



Unit comes with all plumbing including waste water transfer pump, plumbing under building to transfer pump, 2 x 125 litre 3.6kw quick recovery hot water systems, 1.5" suction hose to SPU and 1.5" water supply hose ready to plug in. Building includes slide out walkways and aluminum stairs which are stored under trailer for transport

Building dimensions are 12.4m x 3.15m on a 45' tandem axle trailer.

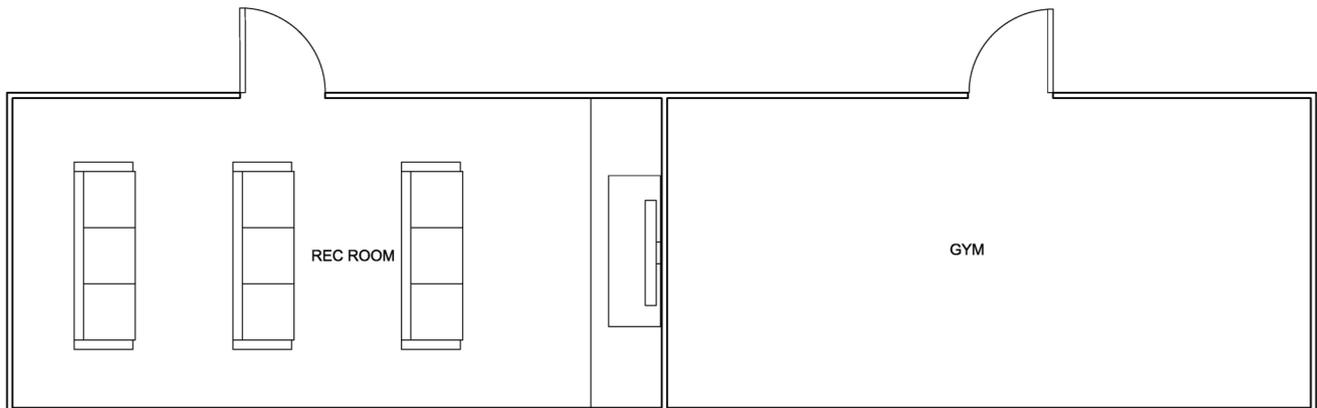
### Laundry Includes:

7	Commercial grade washing machines
7	Commercial grade dryers
3	1700 x 900 double door linen cupboards
3	Laundry tubs
2	Post formed bench with underbench storage cupboard

### Office Includes:

1	3 workstations (with data, phone and power outlets)
2	Wall mount bookshelf / cupboard combination
3	Underbench filing cabinets
1	Underbench storage cupboard
1	U shaped, post formed bench top
2	Split system air conditioners

## 515-002TM: Gym / Rec Room



Building dimensions are 12.4m x 3.15m on a 45' tandem axle trailer.

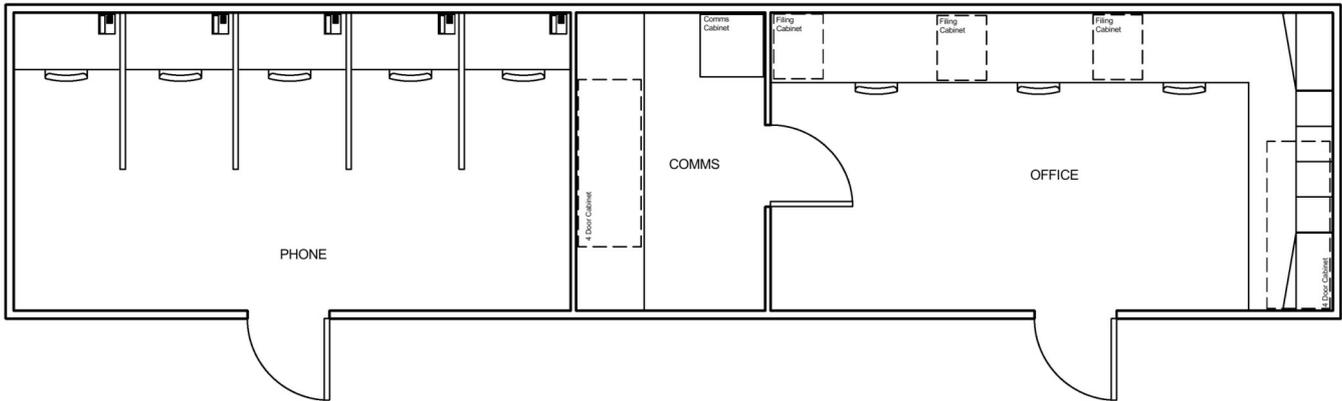
### Gym Room includes:

4	Various resistance and cardio units (eg. Spin bike, rowing machine, treadmill & multi gym)
1	40" TV
2	Split system air conditioners

### Recreation room includes:

9	Tub style leather chairs
1	40" TV
1	Post form bench top with underbench storage cupboard
2	Split system air conditioners

## 510-017TM: Communications / Office



Building dimensions are 12.4m x 3.15m on a 45' tandem axle trailer.

### Comms Room includes:

1	Post form bench top with underbench storage cupboard (cupboard is vented for Austar unit cooling)
1	Comms system cabinet
1	24 outlet patch panel
1	Split system air conditioner

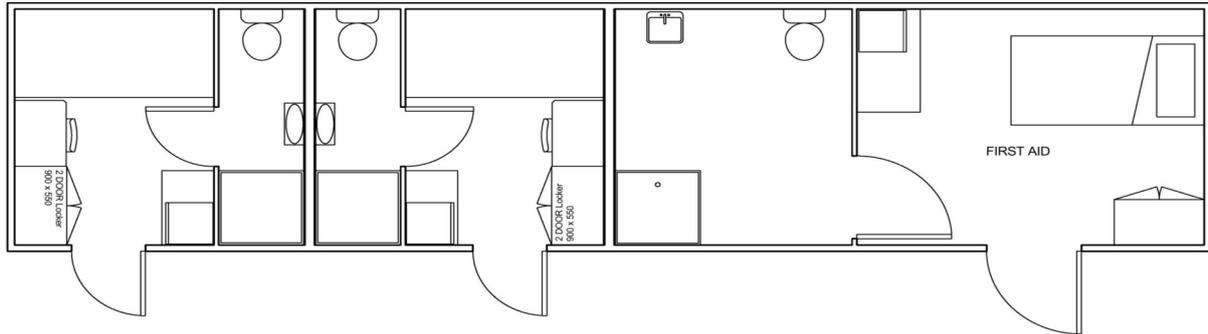
### Phone Room includes:

5	Phone cubicles with divider walls
5	VOIP phone outlets
1	Split system air conditioner

### Office Includes:

1	3 workstations (with data, phone and power outlets)
1	Wall mount bookshelf / cupboard combination
3	Underbench filing cabinets
1	Underbench storage cupboard
1	L shaped, post formed bench top
2	Split system air conditioners

## 512-004TM: First Aid / 2 Person Sleeper



Unit comes with all plumbing including waste water transfer pump, plumbing under building to transfer pump, 2 x 125 litre 3.6kw quick recovery hot water systems, 1.5" suction hose to Waste Treatment Unit and 1.5" water supply hose ready to plug in. Building includes addressable back to base smoke detection alarm and battery back up smoke detectors linked to all rooms, slide out walkways & aluminum stairs which are stored under the trailer for transport.

Building dimensions are 12.4m x 3.15m on a 45' tandem axle trailer.

### PWD / First Aid Room & PWD Ensuite includes:

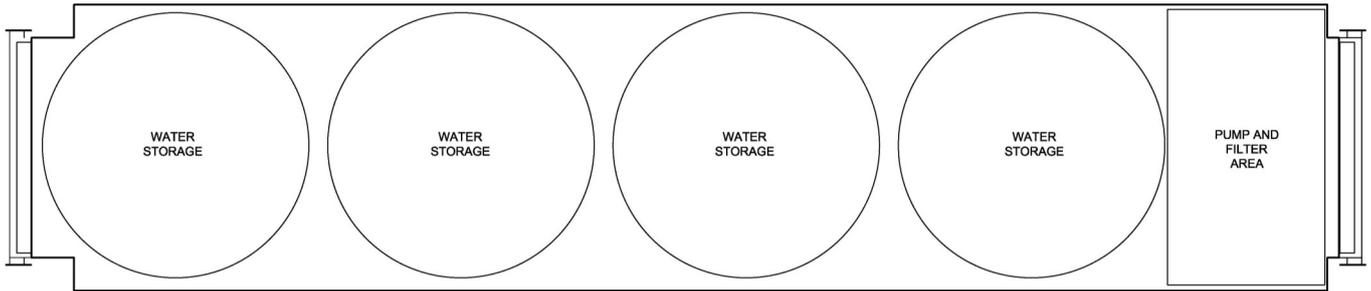
1	King size single bed
1	1700 x 900 double door cupboard
1	Workstation with chair
1	100l fridge
1	Towel rack
1	Open disabled shower & toilet
1	Exhaust fan
1	Vanity sink, cabinet and toilet roll holder
4	Coat hooks

### Each bedroom & ensuite includes:

1	King Size Single Bed
1	TV LCD 19" with DVD player
1	2 door locker cupboard with hanging space & shelving
1	Workstation desk and chair
1	Split system air conditioner
1	Room light
1	LED bedside reading light
1	100ltr fridge
1	Towel rail
1	Porcelain toilet with plastic cistern
1	900 x 900 fibreglass shower cubical with water saving shower head, mixer tap and curtain.
1	Exhaust fan
1	Vanity sink and mirror
1	Toilet roll holder
2	Coat hooks



## 522-022TM: Water Storage Trailer



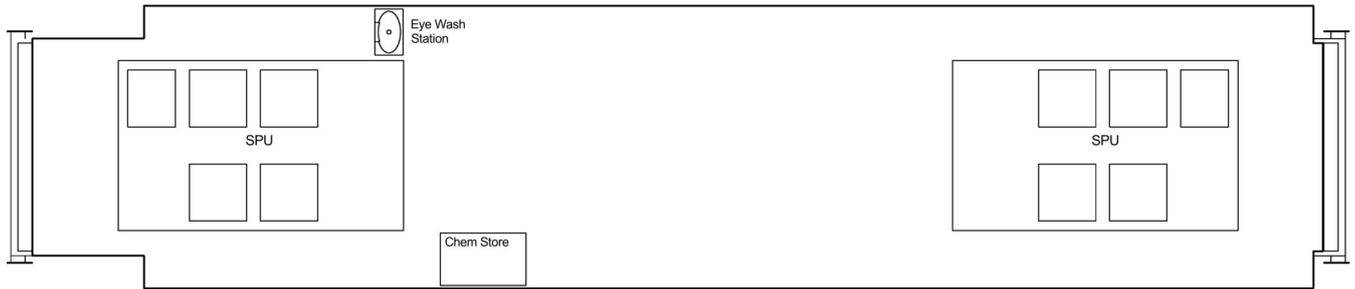
Unit comes with complete and ready to plug in.

Dimensions are 14m x 3m on a 45' tri axle trailer.

### Utility Skid Includes:

4	13,500ltr poly water storage tanks
4	Pressure pumps
1	Potable water filtration system ( <i>Potable water in</i> )
1	Canvas shade cover over water storage tanks
1	Water chiller

## 509-004TM: Dual Sewerage Treatment Trailer



Unit comes with complete and ready to plug in.

Dimensions are 14m x 3m on a 45' tri axle trailer

### Dual Sewerage Treatment Skid Includes:

2	Sewerage treatment units <i>(units only available on separate rental agreement)</i>
1	Eye wash station
1	Chemical storage cabinet
1	General storage area <i>(for walkway covers etc.)</i>

## 509-012TM: Single Sewerage Treatment Trailer



Unit comes complete and ready to plug in.

Dimensions are 14m x 3m on a 45' tri axle trailer

### Dual Sewerage Treatment Skid Includes:

1	Sewerage treatment units (units only available on separate rental agreement)
1	Eye wash station
1	Chemical storage cabinet
1	General storage area ( <i>for walkway covers etc.</i> )



Annexure 5  
Bushfire Management Plan



Fire Protection  
Association Australia  
Life. Property. Environment.



# Bushfire Management Plan Coversheet

This Coversheet and accompanying Bushfire Management Plan has been prepared and issued by a person accredited by Fire Protection Association Australia under the Bushfire Planning and Design (BPAD) Accreditation Scheme.

## Bushfire Management Plan and Site Details

Site Address / Plan Reference: Lot 7 Greenbushes-Grimwade Road

Suburb: North Greenbushes

State: WA

P/code: 6254

Local government area: Shire of Bridgetown-Greenbushes

Description of the planning proposal: Temporary Workers Camp

BMP Plan / Reference Number: CAT GRE ZB/2208

Version: 1

Date of Issue: 08/08/2022

Client / Business Name: B&J Catalano Pty Ltd

## Reason for referral to DFES

Yes

No

Has the BAL been calculated by a method other than method 1 as outlined in AS3959 (tick no if AS3959 method 1 has been used to calculate the BAL)?



Have any of the bushfire protection criteria elements been addressed through the use of a performance principle (tick no if only acceptable solutions have been used to address all of the BPC elements)?



Is the proposal any of the following special development types (see SPP 3.7 for definitions)?

Unavoidable development (in BAL-40 or BAL-FZ)



Strategic planning proposal (including rezoning applications)



Minor development (in BAL-40 or BAL-FZ)



High risk land-use



Vulnerable land-use



If the development is a special development type as listed above, explain why the proposal is considered to be one of the above listed classifications (E.g. considered vulnerable land-use as the development is for accommodation of the elderly, etc.)?

N/A

Note: The decision maker (e.g. local government or the WAPC) should only refer the proposal to DFES for comment if one (or more) of the above answers are ticked "Yes".

## BPAD Accredited Practitioner Details and Declaration

Name

Tom Hockley

Accreditation Level

Level 2

Accreditation No.

BPAD39692

Accreditation Expiry

31/05/2022

Company

Allerding & Associates

Contact No.

9382 3000

I declare that the information provided within this bushfire management plan is to the best of my knowledge true and correct

Signature of Practitioner

Date 08/08/2022

# Bushfire Management Plan

Temporary Workers Accomodation

Lot 7 Greenbushes-Grimwade Road,  
North Greenbushes

Shire of Bridgetown-Greenbushes



Prepared For: B & J Catalano  
Pty Ltd  
Prepared By: Allering and  
Associates  
August 2022



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Document ID: <a href="#">CAT GRE ZB/2208</a>						
Issue	Date	Status	Prepared by		Approved by	
			Name	Initials	Name	Initials
1	04.08.22	Final	Tom Hockley BPAD39692 Level 2	TH	Tom Hockley BPAD39692 Level 2	TH
Site Inspection:		Undertaken on 4 August 2022				
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## 1.0 EXECUTIVE SUMMARY

This Bushfire Management Plan (BMP) has been prepared to accompany an application for planning approval to the Shire of Bridgetown-Greenbushes (the Shire) for a proposed temporary workers camp on Lot 7 Greenbushes-Grimwade Road, North Greenbushes (subject site). The application for planning approval has been prepared by Allerding & Associates on behalf of the B&J Catalano Pty Ltd (B&J Catalano) who are currently contracted by Talison Lithium to construct the nearby Tailings Storage Facility No. 4 (TSF4) tailings dam located at the southern end of the Talison Lithium mine site in Greenbushes. The purpose of the BMP is to assess whether the proposal complies or can be made compliant with the relevant planning controls based on the assessed bushfire risk.

Portions of the subject site are located within an area designated as bushfire prone due to the nature of vegetation within 100m of the site. *State Planning Policy 3.7 – Planning in Bushfire Prone Areas* (SPP3.7) requires that planning proposals on land designated as bushfire prone must be accompanied by an assessment (in the form of a BMP) under the provisions of Clause 6.5 (for development applications) where a Bushfire Attack Level (BAL) rating above BAL-LOW applies. In this instance, due to the presence of classified vegetation within and surrounding the subject site, a BAL rating above BAL-LOW will apply. As the BAL ratings exceed BAL-LOW an assessment against the provisions of SPP3.7 and the *Guidelines for Planning in Bushfire Prone Areas version 1.4* (the Guidelines) has been undertaken.

This BMP demonstrates that the proposal can fully comply with the acceptable solutions of the Guidelines, subject to the requirements set out in Table 3 and Sections 6.0 and 7.0, including:

- The creation and ongoing maintenance of a 50m Asset Protection Zone (APZ) around proposed buildings;
- The construction and maintenance of a vehicular access route to service the proposed development; and
- The installation and maintenance of a dedicated emergency water supply for fire fighting purposes to service the temporary accommodation.

A BAL Contour Map has been prepared to determine the level of construction required for the proposed buildings within 100m of classified vegetation pursuant to Australian Standard AS3959-2018 *Construction of buildings in bushfire-prone areas* (AS3959). The applicable BAL ratings for each proposed building are therefore set out as part of this BMP as a guideline for future construction standards. In preparing the BAL Contour Map, a post development scenario has been assumed, in which all classified vegetation within the development site is either removed or managed in a low threat standard. Vegetation outside the development site will remain the same as the pre-development assessment.

This BMP sets out the immediate and longer term management strategies for bushfire hazards within and surrounding the subject site and provides a basis for an ongoing commitment by the landowner/operator to undertake bushfire risk management measures for the life of the development. When implemented, the management measures contained within this BMP will assist in the preservation of life and the reduction in the impacts of bushfire on property and infrastructure.

## 2.0 PROPOSAL DETAILS

### 2.1 Purpose of the BMP

This BMP has been prepared to accompany an application for planning approval to the Shire for a temporary workers camp at Lot 7 Greenbushes-Grimwade Road, North Greenbushes (subject site).

As the ultimate form of development is known, the purpose of the BMP is to assess whether the proposed temporary workers camp at the subject site complies or can be made compliant with the relevant planning controls based on the assessed bushfire risk.

The BMP has been prepared to identify the areas within and surrounding the subject site which may present potential bushfire risk to the proposed development based on the BAL ratings across the subject site as demonstrated within the BAL Contour Map and provides additional management measures to address identified risks. In addition, this BMP contains an identification of any bushfire hazard issues arising from the BAL Contour Map, as well as an assessment against the bushfire protection criteria requirements contained within the Guidelines demonstrating compliance within the boundary of the development site.

### 2.2 Location

The subject site is situated in the locality of North Greenbushes 205km south of the Perth CBD.

A location plan is included at **Figure 1** which identifies the site as being on the eastern side of Greenbushes-Grimwade Road.

### 2.3 Zoning and Land Use

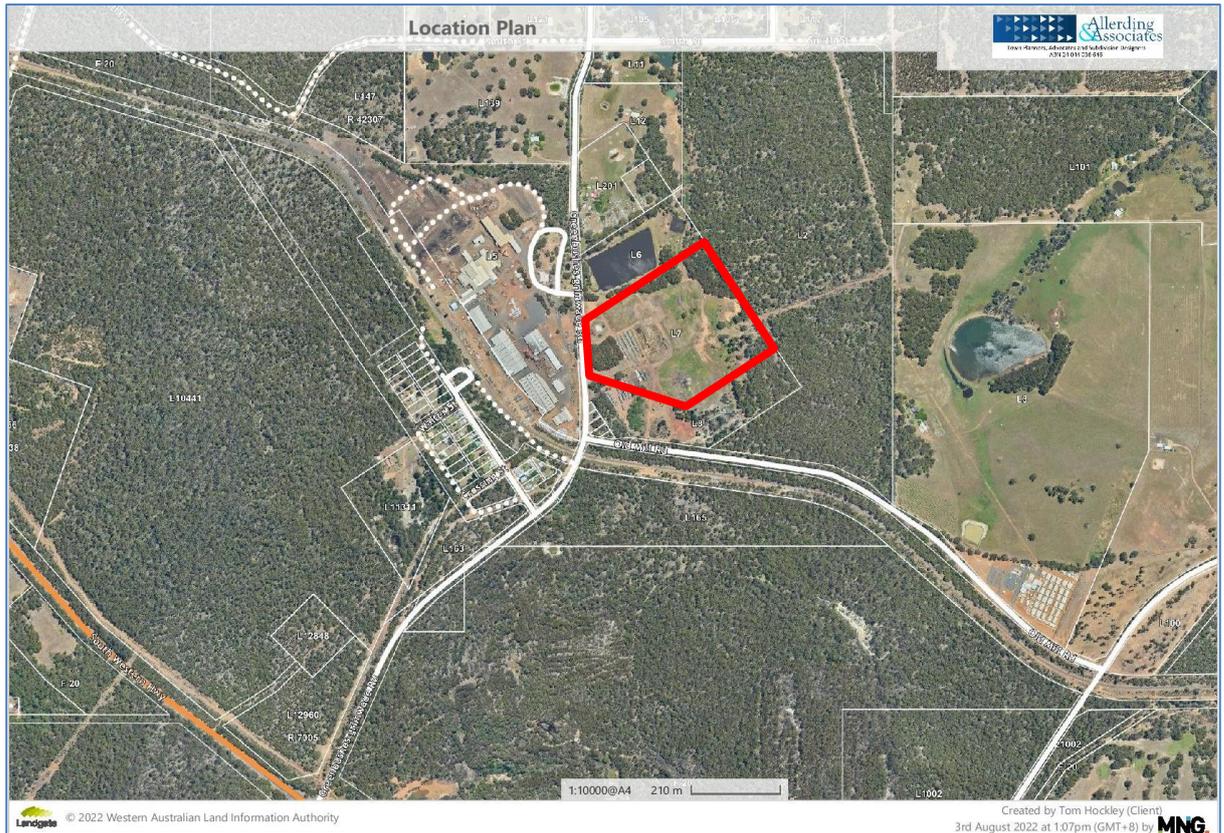
The subject site is presently zoned 'Industrial' under the Shire of Bridgetown-Greenbushes Local Planning Scheme No. 4 (LPS4).

As outlined on the Department of Fire and Emergency Services (DFES) Western Australian Map of Bush Fire Prone Areas, portions of the subject site are designated as bush fire prone (refer **Figure 2**).

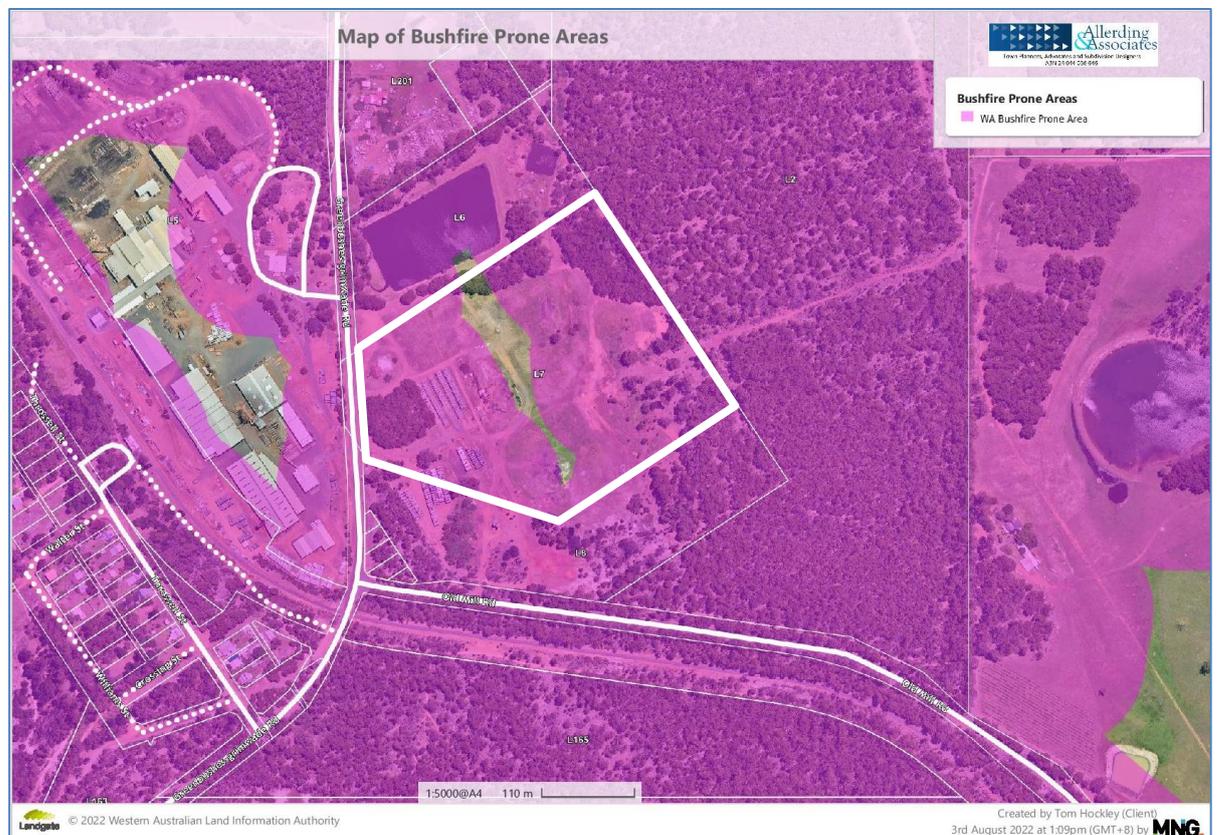
The subject site is currently owned by Parkside Group No. 2 Pty Ltd (Parkside Group) and will be leased by B&J Catalano for up to three (3) years. B&J Catalano will manage the temporary workers camp once established on the subject site for the duration of the construction of the TSF4 tailings dam located at the southern end of the Talison Lithium mine site in nearby Greenbushes.

The subject site has a total area of 10.45 hectares, with the proposed temporary workers camp to occupy an area of approximately 5,000m<sup>2</sup> in the central portion of the site.

The subject site currently contains an existing dwelling located in the western portion of the site, as well as stored timber and machinery associated with the neighbouring mill. The land also contains both cleared paddock and vegetated areas.



**Figure 1 – Location Plan (Source: MNG Maps 2022)**



**Figure 2 – Map of Bushfire Prone Areas (Source: MNG Maps 2022)**

## 2.4 Overview of Proposal

B&J Catalano are currently contracted by Talison Lithium to construct the TSF4 tailings dam (cell 1 and 2) located at the southern end of the Talison Lithium mine site in Greenbushes.

Approximately 76 staff are employed by Catalano to conduct the tailings dam construction and require temporary workers accommodation to maintain a local workforce during that period, which is planned to occur over the next two (2) years.

Whilst some accommodation has been secured locally, a temporary workers camp is necessary to accommodate approximately 61 employees while construction operations are undertaken.

A temporary workers camp is proposed over a vacant industrial site at Lot 7 Greenbushes-Grimwade Road, North Greenbushes (subject site) adjacent to the Parkside Timber Greenbushes Mill. The camp proposes to accommodate a 61 person mobile facility, complete with water and sewer supplies, and self contained facilities including dining and gymnasium.

Planning approval is sought for three (3) years to accommodate sufficient time for Catalano to conduct its tailings dam construction.

The proposed temporary workers accommodation at the subject site will involve the following elements:

- One (1) 14m x 3m single sewerage treatment trailer;
- One (1) 14m x 3m dual sewerage treatment trailer;
- Fifteen (15) 12.7m x 3.15m trailers, each containing four accommodation units which include ablution facilities:
- One (1) 12.4m x 3.15m trailer containing a First Aid station and two (2) further accommodation units;
- One (1) 12.4m x 3.15m trailer containing office and communications facilities;
- One (1) 12.4m x 3.15m trailer containing office facilities and a laundry room;
- One (1) 12.4m x 3.15m trailer containing a recreation room and gym;
- Two (2) 12.4m x 3.15m trailers containing dining facilities;
- One (1) 12.4m x 3.15m trailer containing kitchen cooking facilities;
- One (1) 12.4m x 3.15m trailer containing facilities for food preparation;
- One (1) 12.4m x 3.15m trailer containing food storage facilities;
- One (1) 14.00 x 3.00m water storage trailers; and
- One (1) 14.00 x 3.00m utilities trailers.

Planning approval is also sought for the following:

- A 46 bay light vehicle car park located to the north of the trailer camp; and
- A loading area located to the west of the trailer camp.

A site plan of the proposed temporary workers camp development site is included at **Figure 3**. A copy of the development plans are included at **Appendix 1**.

This BMP has been prepared to accompany the application for planning approval to the Shire prepared by Allerding & Associates, dated August 2022. That document has been considered in the preparation of this BMP. The BMP for the subject site has been prepared to address the provisions of SPP3.7 and the Guidelines.

There are no known BMPs previously prepared for the subject site.

## **2.5 Access**

Vehicular access to the subject site is proposed to occur via the existing crossover at Greenbushes-Grimwade Road. A 100m long trafficable driveway will connect the camp to the public road network.

The location of the proposed access arrangement servicing the proposed development will be considered as part of this BMP.

## **2.6 Water and Power Supply**

The subject site is not connected to mains water or power.

The proposed temporary workers camp will be serviced by a water storage trailer containing four (4) 13,500 litre water storage tanks (total 54,000 litre capacity) with pumps and filtration.

Power to the camp will be supplied by a utilities trailer comprising two (2) 150kva generators which will be fueled by two (2) double banded 6,500 litre diesel storage tanks.

A dedicated water supply of 50,000 litre capacity for firefighting purposes will also be required to be provided on site. It is recommended that a second water storage trailer of the same capacity as the main water supply (four 13,500 litre water storage tanks) be provided for firefighting purposes on-site.

## **2.7 Bushfire Response Capability**

The closest responder is the Greenbushes Bushfire Fire Brigade, located approximately 2.5km south of the subject site which is approximately 5m travel distance to the site. The Bridgetown Volunteer Fire and Rescue service is based approximately 19km south-east of the subject site which is approximately 14 minutes travel distance to the site. Both responders are expected to provide a best-case emergency suppression response time of 30 minutes should a bushfire threaten lives or buildings on or adjacent to the site.



**Figure 3 – Site Plan of Proposed Temporary Workers Camp**

### 3.0 ENVIRONMENTAL CONSIDERATIONS

The subject site contains a combination of existing native vegetation, cleared paddocks, cleared hardstand areas and access tracks.

#### 3.1 Native Vegetation – Modification and Clearing

The proposed development does not involve the clearing of native vegetation within the development site.

The proposed access track connecting the development site to Greenbushes-Grimwade Road will be constructed through grassed areas of the site and will therefore not involve clearing of native vegetation.

#### 3.2 Revegetation and Landscape Plans

No revegetation or landscaping is proposed as part of the temporary development.

## 4.0 BUSHFIRE ASSESSMENT RESULTS

A Method 1 procedure in accordance with AS3959 has been undertaken to inform this bushfire assessment.

### 4.1 Assessment Inputs

#### 4.1.1 Vegetation Classification

The vegetation classification has been determined within and surrounding the subject site in accordance with Clause 2.2.3 of AS3959. Each distinguishable vegetation plot with the potential to determine the BAL is identified in **Table 1** below with the plots mapped in **Figure 4**. This information has been used to develop the BAL Contour Map at **Figure 6**.

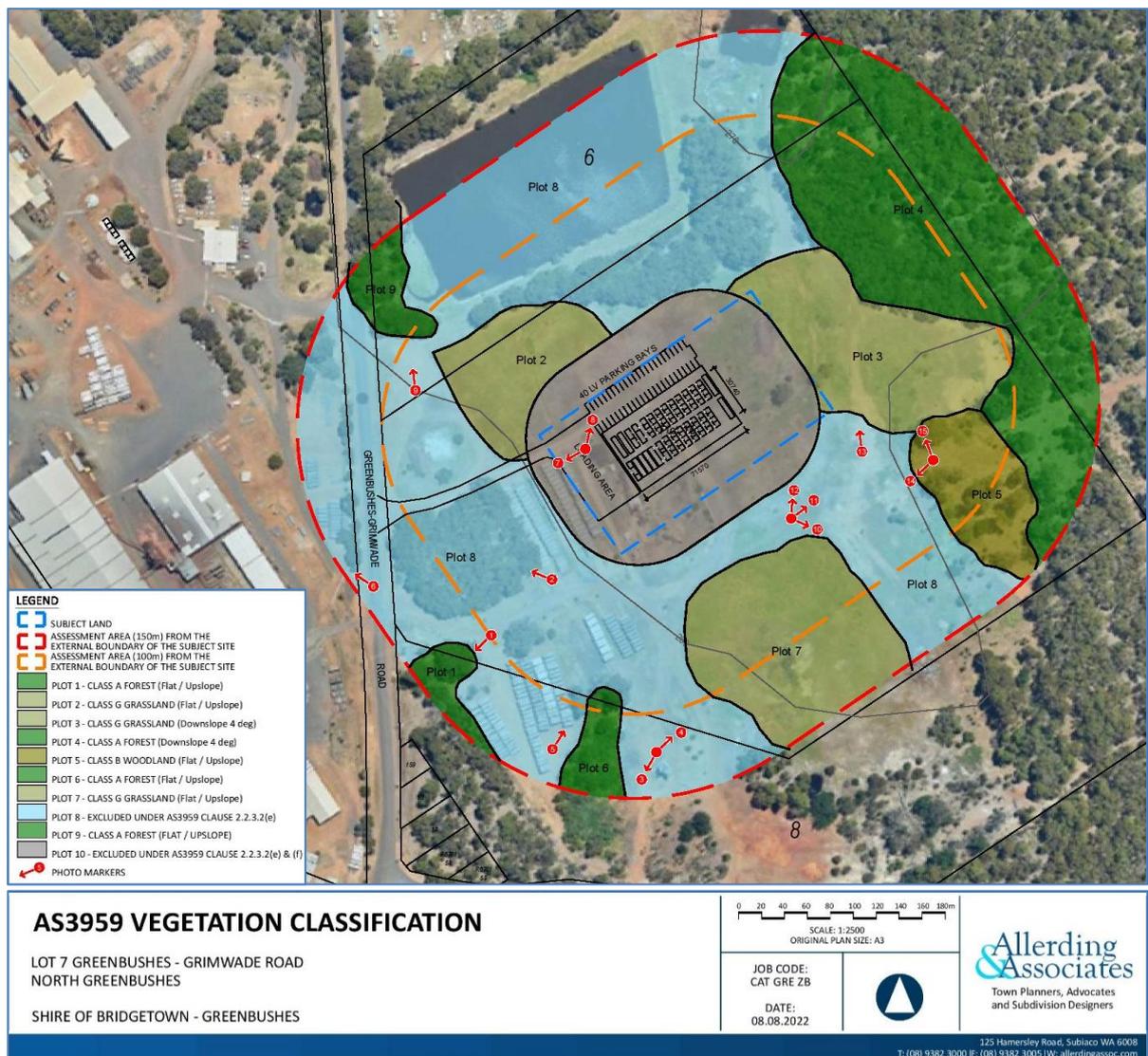


Figure 4 – Vegetation Classification

**Table 1: Vegetation Classification**

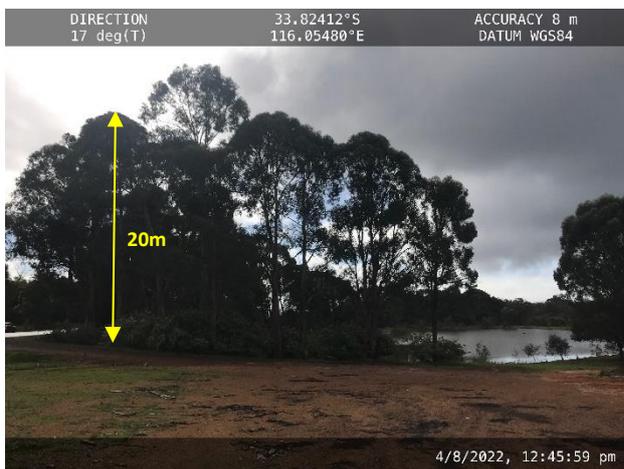
<b>Photo ID</b>	1	<b>Plot</b>	1
<b>Vegetation Classification or Exclusion Clause</b>			
Class A Forest			
<b>Description / Justification for Classification</b>			
Plot 1 to the south-west of the development site contains mature canopy trees ranging in height from 20m to 25m with a foliage cover representing around 80%. Understorey contains low trees and shrubs in an unmanaged state.			
<b>Photo ID</b>	2	<b>Plot</b>	8
<b>Vegetation Classification or Exclusion Clause</b>			
Excludable 2.2.3.2(e) Non Vegetated Areas			
<b>Description / Justification for Classification</b>			
Plot 8 representing the non-vegetated areas around the perimeter of the development site contains both non-vegetated areas including access tracks, roads, buildings and storage areas as well as cleared areas of paddock and formerly vegetated areas.			
<b>Photo ID</b>	3	<b>Plot</b>	6
<b>Vegetation Classification or Exclusion Clause</b>			
Class A Forest			
<b>Description / Justification for Classification</b>			
Plot 6 to the south of the development site contains mature canopy trees ranging in height from 20m to 25m in the northern section of the plot and from 10m to 14m in the southern section of the plot. Foliage cover across the plot represents around 80%. Understorey contains low trees and shrubs in an unmanaged state.			



<b>Photo ID</b>	4	<b>Plot</b>	7
<b>Vegetation Classification or Exclusion Clause</b>			
Class G Grassland			
<b>Description / Justification for Classification</b>			
Plot 7 to the immediate south of the development site comprises cleared paddock with long grasses (30cm-50cm) in an unmanaged state.			
<b>Photo ID</b>	5	<b>Plot</b>	6
<b>Vegetation Classification or Exclusion Clause</b>			
Class A Forest			
<b>Description / Justification for Classification</b>			
Plot 6 to the south of the development site contains mature canopy trees ranging in height from 20m to 25m in the northern section of the plot and from 10m to 14m in the southern section of the plot. Foliage cover across the plot represents around 80%. Understorey contains low trees and shrubs in an unmanaged state.			
<b>Photo ID</b>	6	<b>Plot</b>	8
<b>Vegetation Classification or Exclusion Clause</b>			
Excludable 2.2.3.2(e) Non Vegetated Areas			
<b>Description / Justification for Classification</b>			
Plot 8 representing the non-vegetated areas around the perimeter of the development site contains both non-vegetated areas including access tracks, roads, buildings and storage areas as well as cleared areas of paddock and formerly vegetated areas.			



<b>Photo ID</b>	7	<b>Plot</b>	2
<b>Vegetation Classification or Exclusion Clause</b>			
Class G Grassland			
<b>Description / Justification for Classification</b>			
Plot 2 to the north of the development site comprises cleared paddock with long grasses (30cm-50cm) in an unmanaged state.			
<b>Photo ID</b>	8	<b>Plot</b>	8
<b>Vegetation Classification or Exclusion Clause</b>			
Excludable 2.2.3.2(e) Non Vegetated Areas			
<b>Description / Justification for Classification</b>			
Plot 8 representing the non-vegetated areas around the perimeter of the development site contains both non-vegetated areas including access tracks, roads, buildings and storage areas as well as cleared areas of paddock and formerly vegetated areas.			
<b>Photo ID</b>	9	<b>Plot</b>	9
<b>Vegetation Classification or Exclusion Clause</b>			
Class A Forest			
<b>Description / Justification for Classification</b>			
Plot 6 to the north-west of the subject site contains mature canopy trees ranging in height from 20m to 30m with a foliage cover of around 70%. Understorey contains low trees and shrubs in an unmanaged state.			



<b>Photo ID</b>	10	<b>Plot</b>	5
<b>Vegetation Classification or Exclusion Clause</b>			
Class B Woodland			
<b>Description / Justification for Classification</b>			
Plot 5 to the east of the subject site contains mature canopy trees ranging in height from 6m to 8m with a foliage cover of around 30%. Understorey contains grasses in an unmanaged state.			
<b>Photo ID</b>	11	<b>Plot</b>	4
<b>Vegetation Classification or Exclusion Clause</b>			
Class A Forest			
<b>Description / Justification for Classification</b>			
Plot 4 to the north-east of the subject site contains mature canopy trees ranging in height from 18m to 25m with a foliage cover of around 90%. Understorey contains low trees and shrubs in an unmanaged state.			
<b>Photo ID</b>	12	<b>Plot</b>	3
<b>Vegetation Classification or Exclusion Clause</b>			
Class G Grassland			
<b>Description / Justification for Classification</b>			
Plot 3 to the north-east of the development site comprises cleared paddock with long grasses (30cm-50cm) in an unmanaged state. Isolated stands of trees exist within the plot with foliage cover of less than 10%.			

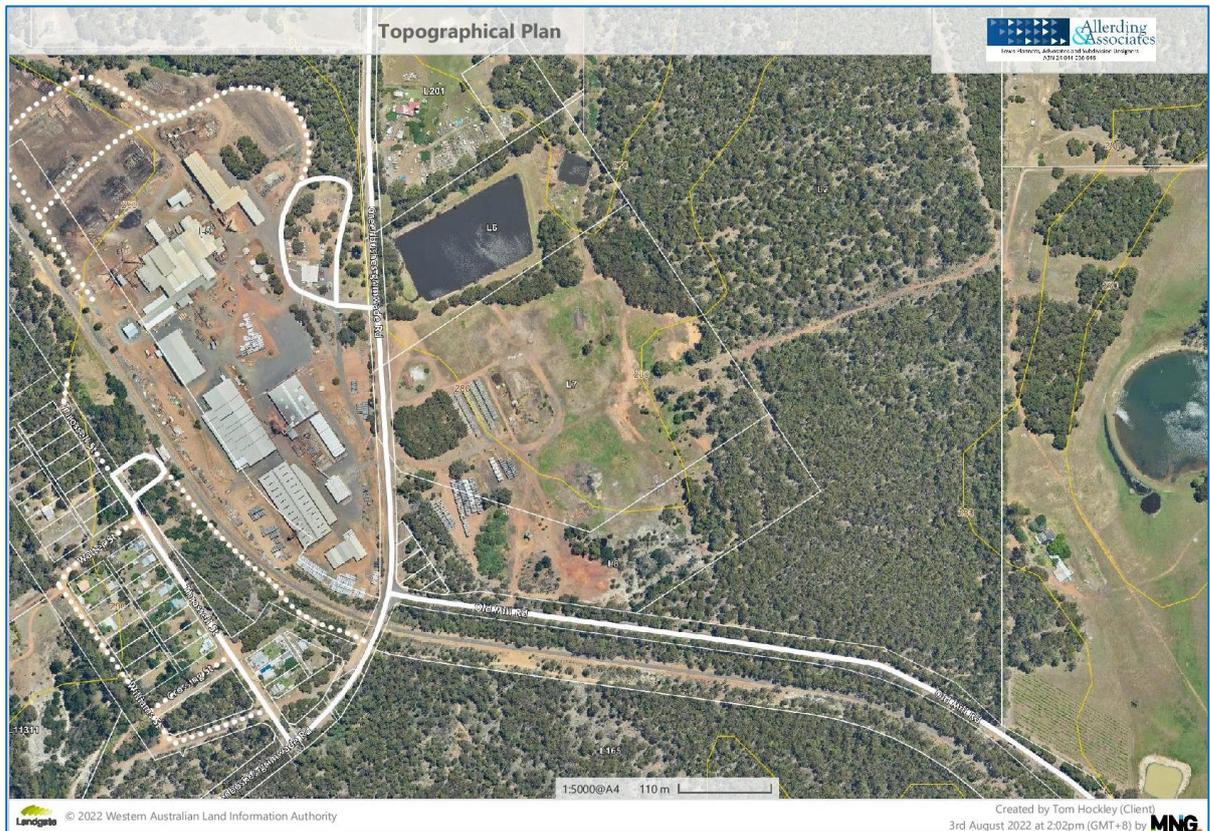


<b>Photo ID</b>	13	<b>Plot</b>	4
<b>Vegetation Classification or Exclusion Clause</b>			
Class A Forest			
<b>Description / Justification for Classification</b>			
Plot 4 to the north-east of the subject site contains mature canopy trees ranging in height from 18m to 25m with a foliage cover of around 90%. Understorey contains low trees and shrubs in an unmanaged state.			
<b>Photo ID</b>	14	<b>Plot</b>	7
<b>Vegetation Classification or Exclusion Clause</b>			
Class G Grassland			
<b>Description / Justification for Classification</b>			
Plot 7 to the immediate south of the development site comprises cleared paddock with long grasses (30cm-50cm) in an unmanaged state.			
<b>Photo ID</b>	15	<b>Plot</b>	3
<b>Vegetation Classification or Exclusion Clause</b>			
Class G Grassland			
<b>Description / Justification for Classification</b>			
Plot 3 to the north-east of the development site comprises cleared paddock with long grasses (30cm-50cm) in an unmanaged state. Isolated stands of trees exist within the plot with foliage cover of less than 10%.			



### 4.1.2 Site Topography and Slope

Based on site observations and available topographical mapping for the broader locality beyond 100m from the boundaries of the subject site, it has been verified that the landform of the subject site and surrounding land is characterised by generally flat and level topography with a gradual fall to the north from the centre of the site. A topographical plan is included at **Figure 5**.



**Figure 5 – Topographical Plan**

## 4.2 Assessment Outputs

### 4.2.1 BAL Assessment

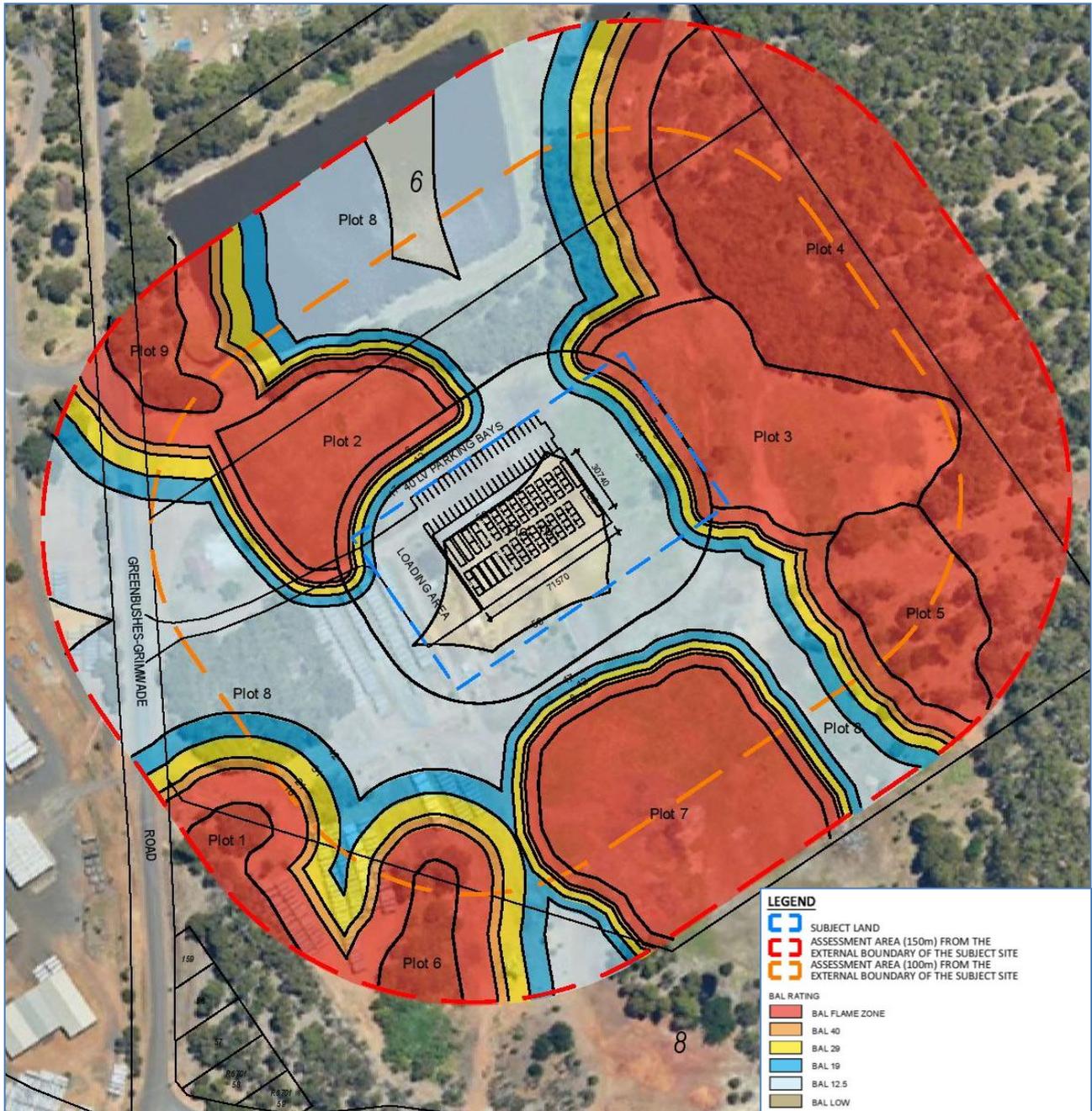
The BAL Assessment was undertaken in accordance with AS3959 Methodology 1 to determine the potential worst case scenario radiant heat impact on the prospective development. **Table 2** below outlines the worst case BAL for each of the vegetation plots based on separation distance to the proposed habitable buildings within the development.

Table 2.1 of AS3959 identifies a Fire Danger Index (FDI) of 80 for Western Australia. Therefore, Table 2.4.3 of AS3959 has been used to develop the BAL Contour Map (refer **Figure 6**) to calculate the BAL for the proposed habitable buildings and inform the standard of building construction required for those buildings to withstand such impacts.

**Table 2: BAL Table for Proposed Habitable Buildings**

Vegetation Plot	Applied Vegetation Classification	Effective Slope Under Classified Vegetation (degrees)	Minimum Separation Distance to Classified Vegetation (m)	Bushfire Attack Level
Plot 1	Class A Forest	Flat/Upslope	140m	Low
Plot 2	Class G Grassland	Flat/Upslope	50m*	Low
Plot 3	Class G Grassland	Downslope 4°	50m*	Low
Plot 4	Class A Forest	Downslope 4°	102m	Low
Plot 5	Class B Woodland	Flat/Upslope	108m	Low
Plot 6	Class A Forest	Flat/Upslope	118m	Low
Plot 7	Class G Grassland	Flat/Upslope	72m	Low
Plot 9	Class A Forest	Flat/Upslope	122m	Low
<b>Worst case BAL</b>				<b>29</b>

\* Assumes that land within the 50m nominated Asset Protection Zone is managed in a low threat state to the standards contained at **Appendix 4** for the life of the development.



**BAL CONTOUR MAP**

LOT 7 GREENBUSHES - GRIMWADE ROAD  
 NORTH GREENBUSHES  
 SHIRE OF BRIDGETOWN - GREENBUSHES



JOB CODE:  
 CAT GRE ZB  
 DATE:  
 08.08.2022



  
 Town Planners, Advocates  
 and Subdivision Designers

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**Figure 6 – BAL Contour Map**

## 5.0 IDENTIFICATION OF BUSHFIRE HAZARD ISSUES

Based on the BAL assessment undertaken as part of this BMP, the determined BAL associated with the area within the subject site where new development is planned to occur is BAL-Low.

However, it is noted that vegetated areas exist to the south (Plots 1 and 6) and east (Plot 4) of the subject site where classified Class A Forest vegetation plots link to the larger contiguous Class A Forest vegetation. These areas extend further afield to the south, east and west of the subject site. These large areas of unmanaged Class A Forest vegetation provide opportunity for extended fire runs and landscape scale bushfires in proximity to the subject site.

These existing areas of classified vegetation surrounding the development site will be separated from the proposed temporary workers camp by cleared paddock which is capable of being managed as a large 50m Asset Protection Zone and hardstand and driveway areas around the accommodation and which will be accessible for fire suppression from different directions during a bushfire event. The presence of adjacent classified vegetation therefore does not pose a significant threat to the development.

All proposed buildings within the site will therefore be capable of separation from surrounding classified vegetation by APZs comprising either managed paddock or hardstand areas. Pursuant to the Shire of Bridgetown-Greenbushes 2021/2022 Firebreak and Fuel Hazard Reduction Notice (refer **Appendix 3**), the operator will also be required to create an access track not less than 3m in width and a minimum 4m vertical clearance to overhanging vegetation around all buildings. In addition, around all buildings and fuel storage areas, the operator is required to slash and remove all flammable materials likely to create a fire hazard, except living trees and shrubbery for at least 20m around the building and fuel storage area. Grass height not to exceed 100mm. For any remaining unmanaged land within the site, the operator must as a minimum, either remove all flammable materials from the entire property except living trees and shrubbery and maintain throughout the required period, with grass height not to exceed 100mm, or construct and maintain a 3m wide firebreak with a minimum 4m vertical clearance to overhanging vegetation as near as practical to the perimeter of the property.

Pursuant to Clause 6.5 of SPP3.7, the proposal has been assessed against the bushfire protection criteria requirements contained within the Guidelines. Sections 6.0 and 7.0 of this report demonstrates that the proposal complies with the bushfire protection criteria of the Guidelines and it is therefore considered that the bushfire hazard issues can be effectively managed and mitigated.

## 6.0 ASSESSMENT AGAINST THE BUSHFIRE PROTECTION CRITERIA

An assessment of the proposal against the bushfire protection criteria of the Guidelines is contained in **Table 3** which demonstrates that the development meets all acceptable solutions.

## 6.1 Compliance Table

**Table 3: Assessment Against the Bushfire Protection Criteria**

Bushfire Protection Criteria	Intent	Method of Compliance	Proposed Bushfire Management Strategies	Response
		Acceptable Solutions		
<b>Element 1: Location</b>	To ensure that strategic planning proposals, subdivision and development applications are located in areas with the least possible risk of bushfire to facilitate the protection of people, property and infrastructure.	<p>A1.1 Development location</p> <p>The strategic planning proposal, subdivision and development application is located in an area that is or will, on completion, be subject to either a moderate or low bushfire hazard level, or BAL-29 or below.</p>	The BAL Contour Map at <b>Figure 6</b> above demonstrates that the proposed development will be separated from the adjacent bushfire hazard to achieve a BAL of BAL29 or lower. Accordingly, the development will be appropriately located.	The proposal meets the intent of Element 1 and achieves acceptable solution A1.1.
<b>Element 2: Siting and Design of Development</b>	To ensure that the siting and design of development minimises the level of bushfire impact.	<p>A2.1 Asset Protection Zone (APZ)</p> <p>Every habitable building is surrounded by, and every proposed lot can achieve, an APZ depicted on submitted plans, which meets the following requirements:</p> <ul style="list-style-type: none"> <li>Width: Measured from any external wall or supporting post or column of the proposed building, and of sufficient size to ensure the potential radiant heat impact of a bushfire</li> </ul>	The proposed buildings within the subject site have been assessed with a BAL-Low and will achieve a radiant heat impact not exceeding 29kW/m <sup>2</sup> in a bushfire event within the boundaries of the site. The buildings within the subject site are separated from lot boundaries to ensure that an APZ	The proposal meets the intent of Element 2 and achieves acceptable solution A2.1.

Bushfire Protection Criteria	Intent	Method of Compliance	Proposed Bushfire Management Strategies	Response
		Acceptable Solutions		
		<p>does not exceed 29kW/m<sup>2</sup> (BAL-29) in all circumstances.</p> <ul style="list-style-type: none"> <li>• Location: the APZ should be contained solely within the boundaries of the lot on which the building is situated, except in instances where the neighbouring lot or lots will be managed in a low-fuel state on an ongoing basis, in perpetuity (see explanatory notes).</li> <li>• Management: the APZ is managed in accordance with the requirements of 'Standards for Asset Protection Zones'. (see Schedule 1).</li> </ul>	<p>can be successfully established within the boundaries of the subject site.</p> <p>The proposed APZ areas are spatially demonstrated in <b>Figure 7</b>. The standards for APZs are included at <b>Appendix 4</b>.</p>	
<b>Element 3: Vehicular Access</b>	To ensure that the vehicular access serving a subdivision / development is available and safe during a bushfire event.	<p><i>To achieve the intent, <u>all applicable</u> 'acceptable solutions' must be addressed:</i></p> <p>* The acceptable solutions do not apply at every stage of the planning process. Refer to the annotations next to each acceptable solution to determine if they apply.</p> <p>The annotations are outlined below.</p> <p>SP – Strategic planning proposal and structure plan where the lot layout is not known</p> <p>Sb – Structure plan where the lot layout is known and subdivision application</p> <p>Dd – Development application for a single dwelling, ancillary dwelling or minor development</p>	NA	The provisions for "Do" will be considered as part of this assessment.

Bushfire Protection Criteria	Intent	Method of Compliance	Proposed Bushfire Management Strategies	Response
		Acceptable Solutions		
		<p><b>Do</b> – Development application for any other development</p>		
		<p><b>A3.1 Public roads (SP Sb Do)</b> The minimum requirements under this acceptable solution are applicable to all proposed and existing public roads. Public roads are to meet the minimum technical requirements in Table 6, Column 1. The trafficable (carriageway/pavement) width is to be in accordance with the relevant class of road in the Local Government Guidelines for Subdivisional Development (IPWEA Subdivision Guidelines), Liveable Neighbourhoods, Austroad standards and/or any applicable standards for the local government area.</p>	<p>Greenbushes-Grimwade Road is a public road which connects the subject site to the main public road network. Greenbushes-Grimwade Road is a sealed road with a trafficable surface of approximately 7m and a horizontal clearance of 12m. The road has a vertical clearance of &gt;4.5m. Greenbushes-Grimwade Road therefore provides adequate access and egress from the subject site.</p>	<p>The proposal meets the intent of Element 3 and achieves acceptable solution A3.1.</p>
		<p><b>A3.2a Multiple access routes (SP Sb Do)</b> Public road access is to be provided in two different directions to at least two different suitable destinations with an all-weather surface (two-way access). If the public road access to the subject site is via a no-through road which cannot be avoided due to demonstrated site constraints, the road access is to be a maximum of 200 metres from the subject lot(s) boundary to an intersection where two-way access is provided. The no-through road may exceed 200 metres if it is demonstrated that an alternative access,</p>	<p>The subject site gains vehicular access from Greenbushes-Grimwade Road to the west. Greenbushes-Grimwade Road provides safe access and egress via the public road network in two different destinations to the north and south from the subject site.</p> <p>The proposed access arrangements are spatially demonstrated in <b>Figure 7</b>.</p>	<p>The proposal meets the intent of Element 3 and achieves acceptable solution A3.2a.</p>

Bushfire Protection Criteria	Intent	Method of Compliance	Proposed Bushfire Management Strategies	Response
		Acceptable Solutions		
		including an emergency access way, cannot be provided due to site constraints and the following requirements are met: <ul style="list-style-type: none"> <li>the no-through road travels towards a suitable destination; and</li> <li>the balance of the no-through road, that is greater than 200 metres from the subject site, is wholly within BAL-LOW, or is within a residential built-out area – Figure 23.</li> </ul>		
		<b>A3.2b Emergency access way (SP Sb Do)</b> Where it is demonstrated that A3.2a cannot be achieved due to site constraints, or where an alternative design option does not exist, an emergency access way can be considered as an acceptable solution. An emergency access way is to meet all the following requirements: <ul style="list-style-type: none"> <li>requirements in Table 6, Column 2;</li> <li>provides a through connection to a public road;</li> <li>be no more than 500 metres in length; and</li> <li>must be signposted and if gated, gates must open the whole trafficable width and remain unlocked.</li> </ul>	The subject site is not connected to a public road by an emergency access way.	NA
		<b>A3.3 Through-roads (SP Sb)</b> All public roads should be through-roads. No-through roads should be avoided and should only be considered as an acceptable solution where:	NA	NA

Bushfire Protection Criteria	Intent	Method of Compliance	Proposed Bushfire Management Strategies	Response
		Acceptable Solutions		
		<ul style="list-style-type: none"> <li>it is demonstrated that no alternative road layout exists due to site constraints; and</li> <li>the no-through road is a maximum length of 200 metres to an intersection providing two-way access, unless it satisfies the exemption provisions in A3.2a of this table.</li> </ul> <p>A no-through road is to meet all the following requirements:</p> <ul style="list-style-type: none"> <li>requirements of a public road (Table 6, Column 1); and</li> <li>turn-around area as shown in Figure 24</li> </ul>		
		<p><b>A3.4a Perimeter roads (SP Sb)</b>            A perimeter road is a public road and should be provided for greenfield or infill development where 10 or more lots are being proposed (including as part of a staged subdivision) with the aim of:</p> <ul style="list-style-type: none"> <li>separating areas of classified vegetation under AS3959, which adjoin the subject site, from the proposed lot(s); and</li> <li>removing the need for battle-axe lots that back onto areas of classified vegetation.</li> </ul> <p>A perimeter road is to meet the requirements contained in Table 6, Column 1.            A perimeter road may not be required where:</p> <ul style="list-style-type: none"> <li>the adjoining classified vegetation is Class G Grassland;</li> <li>lots are zoned for rural living or equivalent;</li> </ul>	NA	NA

Bushfire Protection Criteria	Intent	Method of Compliance	Proposed Bushfire Management Strategies	Response
		Acceptable Solutions		
		<ul style="list-style-type: none"> <li>it is demonstrated that it cannot be provided due to site constraints; or</li> <li>all lots have frontage to an existing public road</li> </ul>		
		<p>A3.4b Fire service access route (SP Sb) Where proposed lots adjoin classified vegetation under AS3959 (excluding Class G Grassland), and a perimeter road is not required in accordance with A3.4a, a fire service access route can be considered as an acceptable solution to provide firefighter access, where access is not available, to the classified vegetation. A fire service access route is to meet all the following requirements:</p> <ul style="list-style-type: none"> <li>requirements in Table 6, Column 3;</li> <li>be through-routes with no dead-ends;</li> <li>linked to the internal road system at regular intervals, every 500 metres;</li> <li>must be signposted;</li> <li>no further than 500 metres from a public road;</li> <li>if gated, gates must open the required horizontal clearance and can be locked by the local government and/or emergency services, if keys are provided for each gate; and</li> <li>turn-around areas designed to accommodate type 3.4 fire appliances and to enable them to turn around safely every 500 metres.</li> </ul>	NA	NA

Bushfire Protection Criteria	Intent	Method of Compliance	Proposed Bushfire Management Strategies	Response
		Acceptable Solutions		
		<p>A3.5 Battle-axe access legs (Sb)</p> <p>Where it is demonstrated that a battle-axe cannot be avoided due to site constraints, it can be considered as an acceptable solution.</p> <p>There are no battle-axe technical requirements where the point of the battle-axe access leg joins the effective area of the lot, is less than 50 metres from a public road in a reticulated area.</p> <p>In circumstances where the above condition is not met, or the battle-axe is in a nonreticulated water area, the battle-axe is to meet all the following requirements:</p> <ul style="list-style-type: none"> <li>• requirements in Table 6, Column 4; and</li> <li>• passing bays every 200 metres with a minimum length of 20 metres and a minimum additional trafficable width of two metres (i.e. the combined trafficable width of the passing bay and constructed private driveway to be a minimum six metres).</li> </ul>	NA	NA

Bushfire Protection Criteria	Intent	Method of Compliance	Proposed Bushfire Management Strategies	Response
		Acceptable Solutions		
		<p>A3.6 Private driveways (Dd Do)</p> <p>There are no private driveway technical requirements where the private driveway is:</p> <ul style="list-style-type: none"> <li>• within a lot serviced by reticulated water;</li> <li>• no greater than 70 metres in length between the most distant external part of the development site and the public road measured as a hose lay; and</li> <li>• accessed by a public road where the road speed limit is not greater than 70 km/h.</li> </ul> <p>In circumstances where all of the above conditions are not met, or the private driveway is in a non-reticulated water area, the private driveway is to meet all the following requirements:</p> <ul style="list-style-type: none"> <li>• requirements in Table 6, Column 4;</li> <li>• passing bays every 200 metres with a minimum length of 20 metres and a minimum additional trafficable width of two metres (i.e. the combined trafficable width of the passing bay and constructed private driveway to be a minimum six metres); and</li> <li>• turn-around area as shown in Figure 28 and within 30 metres of the habitable building.</li> </ul>	<p>The subject site is not serviced by reticulated water and is accessed by a private driveway which exceeds 70m in length. The private driveway servicing the development site has a length of approximately 100m from Greenbushes-Grimwade Road to the west.</p> <p>The proposal achieves acceptable solution A3.6 as follows:</p> <ul style="list-style-type: none"> <li>• The private driveway servicing the development site has a trafficable surface of 9m, a minimum horizontal clearance of 9m and a minimum vertical clearance exceeding 4.5m, all of which exceed the requirements of Table 6, Column 4;</li> <li>• The private driveway servicing the development site also achieves the weight capacity and grade requirements of Table 6; and</li> <li>• Space for a turn-around area (per Figure 28) within 30m of the temporary accommodation units is</li> </ul>	<p>The proposal meets the intent of Element 3 and achieves acceptable solution A3.6.</p>

Bushfire Protection Criteria	Intent	Method of Compliance	Proposed Bushfire Management Strategies	Response
		Acceptable Solutions		
			provided within the adjacent hardstand loading area.	
<b>Element 4: Water</b>	To ensure that water is available to enable people, property and infrastructure to be defended from bushfire.	<p><i>To achieve the intent, all applicable 'acceptable solutions' must be addressed:</i></p> <p>SP – Strategic planning proposal and structure plan where the lot layout is not known</p> <p>Sb – Structure plan where the lot layout is known and subdivision application</p> <p>Dd – Development application for a single dwelling, ancillary dwelling or minor development</p>	NA	The provisions for “Do” will be considered as part of this assessment.

Bushfire Protection Criteria	Intent	Method of Compliance	Proposed Bushfire Management Strategies	Response
		Acceptable Solutions		
		<b>Do</b> – Development application for any other development that is not a single dwelling, ancillary dwelling or minor development		
		<p>A4.1 Identification of future water supply (SP) Evidence that a reticulated or sufficient non-reticulated water supply for bushfire fighting can be provided at the subdivision and/or development application stage, in accordance with the specifications of the relevant water supply authority or the requirements of Schedule 2.</p> <p>Where the provision of a strategic water tank(s) is required a suitable area within a road reserve or a dedicated lot the location should be identified, should be identified on the structure plan, to the satisfaction of the local government.</p>	NA	NA
		<p>A4.2 Provision of water for firefighting purposes (Sb Dd <b>Do</b>) Where a reticulated water supply is existing or proposed, hydrant connection(s) should be provided in accordance with the specifications of the relevant water supply authority. Where these specifications cannot be met, then the following applies:</p> <ul style="list-style-type: none"> <li>The provision of a water tank(s), in accordance with the requirements of Schedule 2; and</li> </ul>	As the site is not serviced by a reticulated water supply, a 50,000 litre water supply is required to be provided for dedicated firefighting purposes. As the proposal involves temporary development, it is recommended that a second water storage trailer of the same capacity as the main water supply (four 13,500 litre water storage tanks) be provided for firefighting	The proposal meets the intent of Element 4 and achieves acceptable solution A4.2.

Bushfire Protection Criteria	Intent	Method of Compliance	Proposed Bushfire Management Strategies	Response
		Acceptable Solutions		
		<ul style="list-style-type: none"> <li>Where the provision of a strategic water tank(s) is applicable, then the following requirements apply:               <ul style="list-style-type: none"> <li>land to be ceded free of cost to the local government for the placement of the tank(s);</li> <li>the lot or road reserve where the tank is to be located is identified on the plan of subdivision;</li> <li>tank capacity, construction, and fittings, provided in accordance with the requirements of Schedule 2; and</li> <li>a strategic water tank is to be located no more than 10 minutes from the subject site (at legal road speeds).</li> </ul> </li> </ul> <p>Where a subdivision includes an existing habitable building(s) that is to be retained, a water supply should be provided to this existing habitable building(s), in accordance with the requirements listed above.</p>	<p>purposes on-site. It would need to be demonstrated that this water supply can be provided in accordance with the requirements of Schedule 2 of the Guidelines (refer <b>Appendix 5</b>). The recommended location of the water supply is shown in <b>Figure 7</b>.</p>	
<b>Element 5: Vulnerable Tourism Land Uses</b>	To provide bushfire protection for tourism land uses relevant to the characteristics of the occupants and/or the	Not applicable as vulnerable tourism land uses are not proposed.	NA	NA

Bushfire Protection Criteria	Intent	Method of Compliance	Proposed Bushfire Management Strategies	Response
		Acceptable Solutions		
	location, to preserve life and reduce the impact of bushfire on property and infrastructure.			

## 6.2 Additional Management Strategies

The following additional bushfire management strategies have been recommended for guiding future planning and development stages associated with the proposal. These strategies are based on best practice in bushfire protection and reflect the guidance provided by SPP3.7 and the Guidelines.

### 6.2.1 Notification(s) on Title

Pursuant to SPP3.7, in instances where land is assessed with a BAL rating above BAL-LOW, it is recommended that notifications be placed on title to advise on bushfire risk management implementation measures, including:

- To advise that the site is located in a bushfire prone area; and
- To advise that the site is subject to a Bushfire Management Plan.

### 6.2.2 Compliance with Shire of Bridgetown-Greenbushes 2021/22 Firebreak and Fuel Hazard Reduction Notice

The Shire of Bridgetown-Greenbushes 2021/2022 Firebreak and Fuel Hazard Reduction Notice (included at **Appendix 3**) contains the following land management practices for land over 4ha in area, as they relate to the subject site:

*All buildings must have an access track not less than 3 metres in width and a minimum 4 metre vertical clearance to overhanging vegetation. Around all buildings, haystacks and fuel storage areas, slash and remove all flammable materials likely to create a fire hazard, except living trees and shrubbery for at least 20 metres around the building, haystack and fuel storage area. Grass height not to exceed 100mm.*

*In addition to the above, the following requirements also apply to Category 3 properties:*

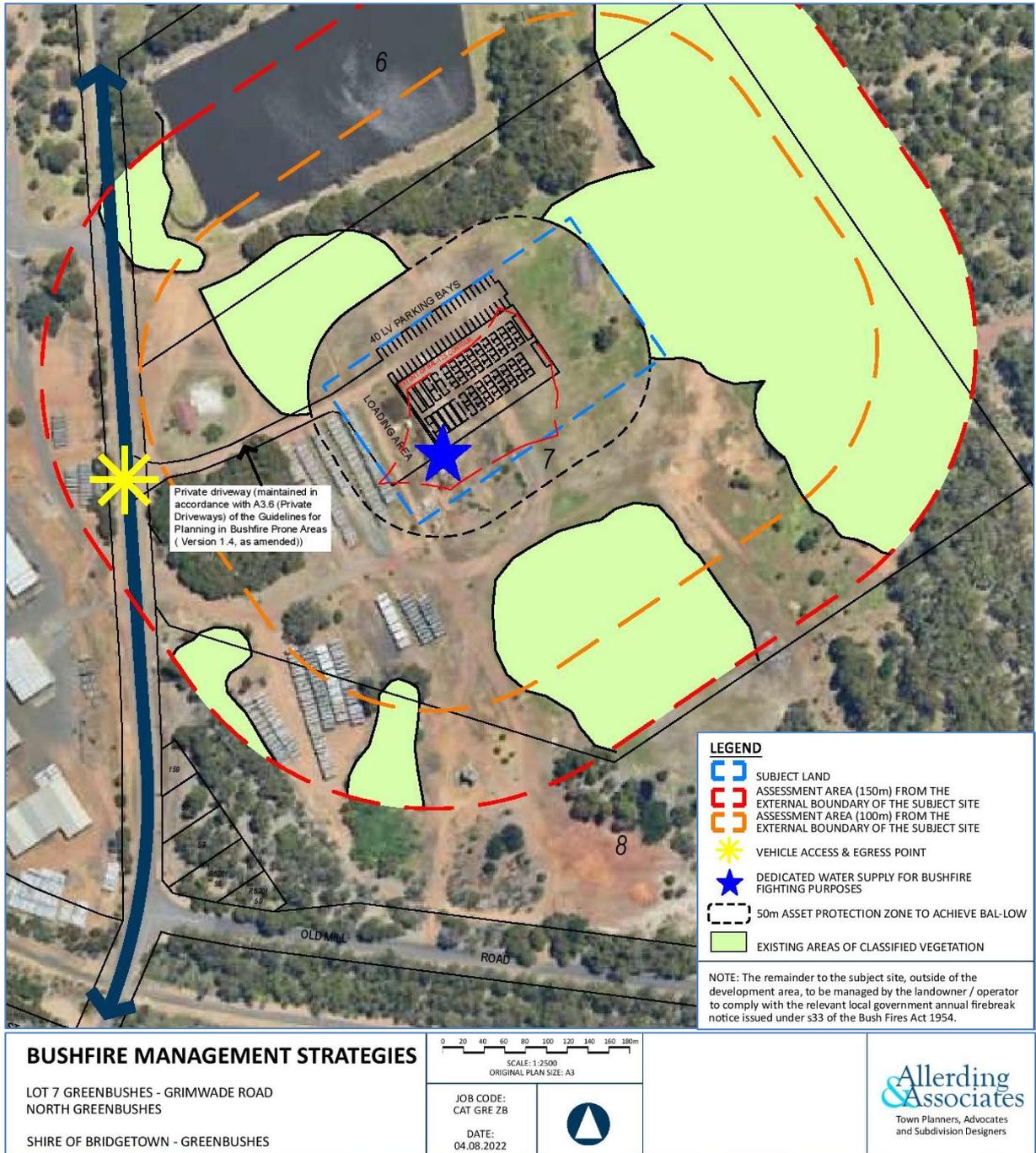
- ...(b) *Unmanaged land: As a minimum, one of the following two methods must be implemented:*
- (i) *Fuel reduction: Remove all flammable materials from the entire property except living trees and shrubbery and maintain throughout the required period. Grass height not to exceed 100mm; or*
  - (ii) *Firebreak: Construct and maintain a 3 metre wide firebreak with a minimum 4 metre vertical clearance to overhanging vegetation as near as practical to the perimeter of the property.*

The bushfire risk management measures to be implemented and maintained on the subject site, including the relevant bushfire protection criteria and the Bushfire Mitigation Notice requirements, are spatially demonstrated in **Figure 7** and the BMP mapping at **Appendix 2**.

### 6.2.3 Building Construction Standards

The Building Code of Australia contains bushfire construction requirements that are applied to residential classes of development, being Class 1, 2, 3 buildings in designated bushfire prone areas, or Class 10a buildings or decks associated with Class 1, 2 or 3 buildings in designated bushfire prone areas. The Building Code of Australia references AS3959 as a deemed to satisfy solution that provides one way of demonstrating compliance with the bushfire performance requirements of the Building Code.

The bushfire construction provisions of the Building Code of Australia do not apply to Class 4 to Class 9 buildings. In these instances the applicant has the discretion to utilise any or all of the elements of AS 3959 in the construction of the building that they deem appropriate.



**Figure 7 – Bushfire Management Strategies**

## 7.0 RESPONSIBILITIES FOR IMPLEMENTATION AND MANAGEMENT

The following tables set out the responsibilities of the developer, landowner, and local government with regard to the initial implementation and ongoing maintenance of the required actions as contained within this BMP.

No.	Action	Implementation		Management	
		Responsible	Timing	Responsible	Timing
1	Construction of buildings to AS3959.	NA	NA	NA	NA
2	Establish and maintain the Asset Protection Zone (APZ) around proposed buildings within the lot boundary to the dimensions and standard stated in the BMP.	Landowner / Operator	Prior to the occupation of the development.	Landowner / Operator	Ongoing
3	Install and maintain vehicular access routes / driveways to the required surface condition and clearances as stated in the BMP.	Landowner / Operator	Prior to the occupation of the development.	Landowner / Operator	Ongoing
4	Install and maintain a water supply dedicated for bushfire firefighting purposes as stated in the BMP.	Landowner / Operator	Prior to the occupation of the development.	Landowner / Operator	Ongoing
5	Notification on Title notifying that the site/lot is located in a bushfire prone area and is subject to a BMP.	Landowner	Prior to the occupation of the development.	NA	NA
6	Comply with the relevant local government annual firebreak notice issued under s33 of the Bush Fires Act 1954.	Landowner / Operator	Ongoing	Landowner / Operator	Ongoing
7	Inspection and compliance action.	NA	NA	Local Government	Ongoing
8	Future revisions / amendments to BMP.	NA	NA	Landowner / Operator	Prior to any future development outside the

No.	Action	Implementation		Management	
		Responsible	Timing	Responsible	Timing
					scope of this BMP.

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## 8.0 REFERENCES

Allerding & Associates 2022, *Planning Report for Proposed Temporary Workers Camp*, 8 August 2022.

MNG 2022, *MNG Access*, <<https://app.mngaccess.com.au/>>.

Shire of Bridgetown-Greenbushes 2021, *2021/2022 Firebreak and Fuel Hazard Reduction Notice*, <[https://www.bridgetown.wa.gov.au/Profiles/bridgetown/Assets/ClientData/Documents/Services/Firebreak\\_and\\_Fuel\\_Hazard\\_Reduction\\_Notice\\_2021\\_FINAL.pdf](https://www.bridgetown.wa.gov.au/Profiles/bridgetown/Assets/ClientData/Documents/Services/Firebreak_and_Fuel_Hazard_Reduction_Notice_2021_FINAL.pdf)>.

Standards Australia Online 2018, *Construction of buildings in bushfire-prone areas*, AS 3959:2018.

Western Australian Planning Commission 2021, *Guidelines for planning in bushfire prone areas version 1.4*, <<https://www.wa.gov.au/system/files/2021-12/Guidelines-for-planning-in-bushfire-prone-areas-version-1.4.pdf>>.

Western Australian Planning Commission 2015, *State planning policy 3.7 planning in bushfire prone areas*, <[https://www.planning.wa.gov.au/dop\\_pub\\_pdf/SPP\\_3.7\\_Planning\\_in\\_Bushfire\\_Prone\\_Areas.pdf](https://www.planning.wa.gov.au/dop_pub_pdf/SPP_3.7_Planning_in_Bushfire_Prone_Areas.pdf)>.

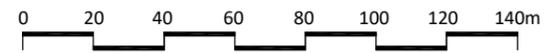
## **APPENDIX 1 – DEVELOPMENT PLANS**



# SITE MAP

LOT 7 GREENBUSHES - GRIMWADE ROAD  
NORTH GREENBUSHES

SHIRE OF BRIDGETOWN - GREENBUSHES



SCALE: 1:2000  
ORIGINAL PLAN SIZE: A3

## LEGEND

 SUBJECT LAND

JOB CODE:  
CAT GRE ZB

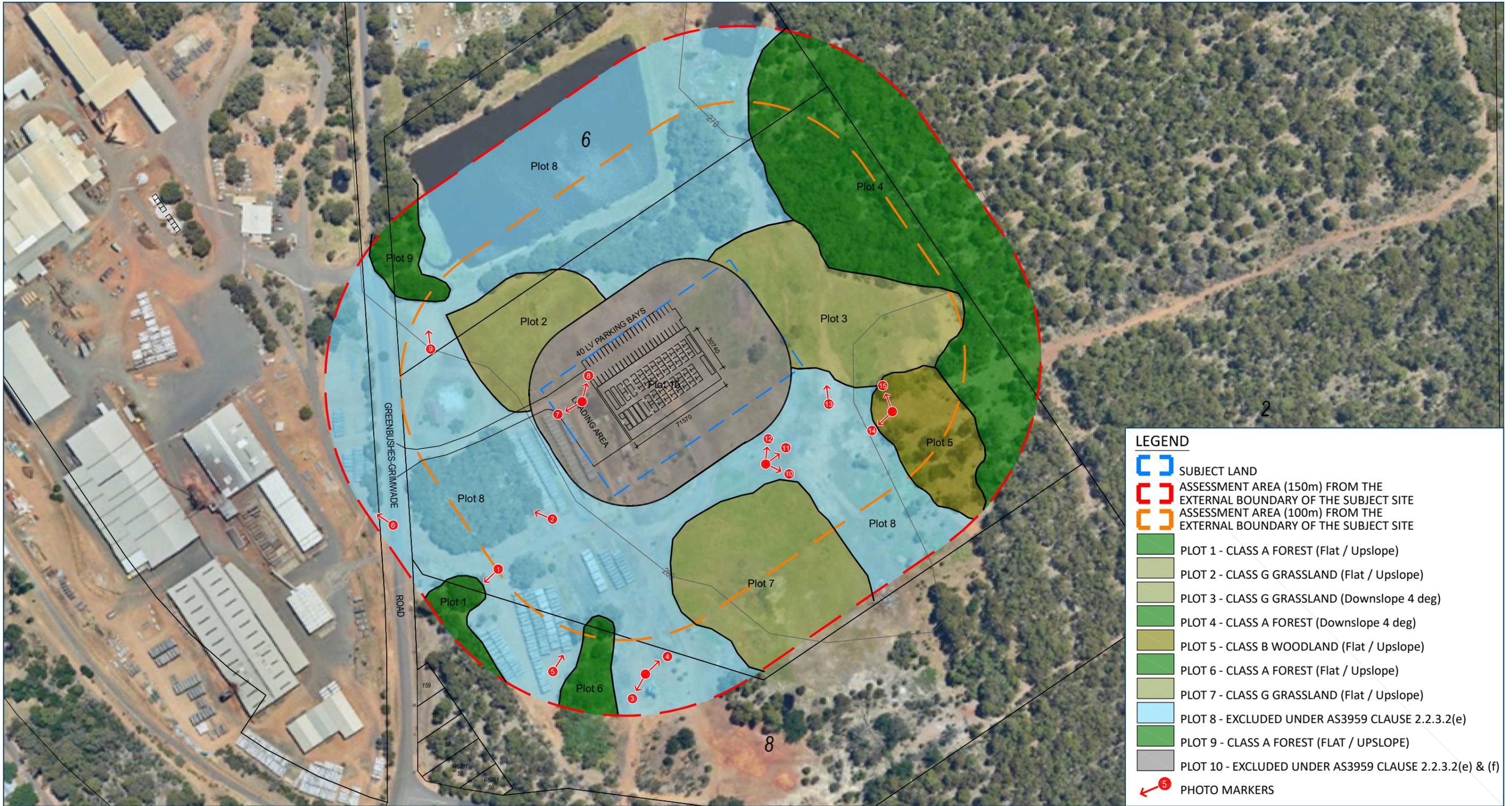
DATE:  
25.08.2022



**Allering & Associates**

Town Planners, Advocates  
and Subdivision Designers

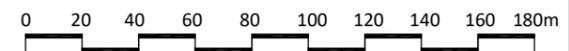
## **APPENDIX 2 – BUSHFIRE MANAGEMENT PLAN MAPPING**



# AS3959 VEGETATION CLASSIFICATION

LOT 7 GREENBUSHES - GRIMWADE ROAD  
NORTH GREENBUSHES

SHIRE OF BRIDGETOWN - GREENBUSHES



SCALE: 1:2500  
ORIGINAL PLAN SIZE: A3

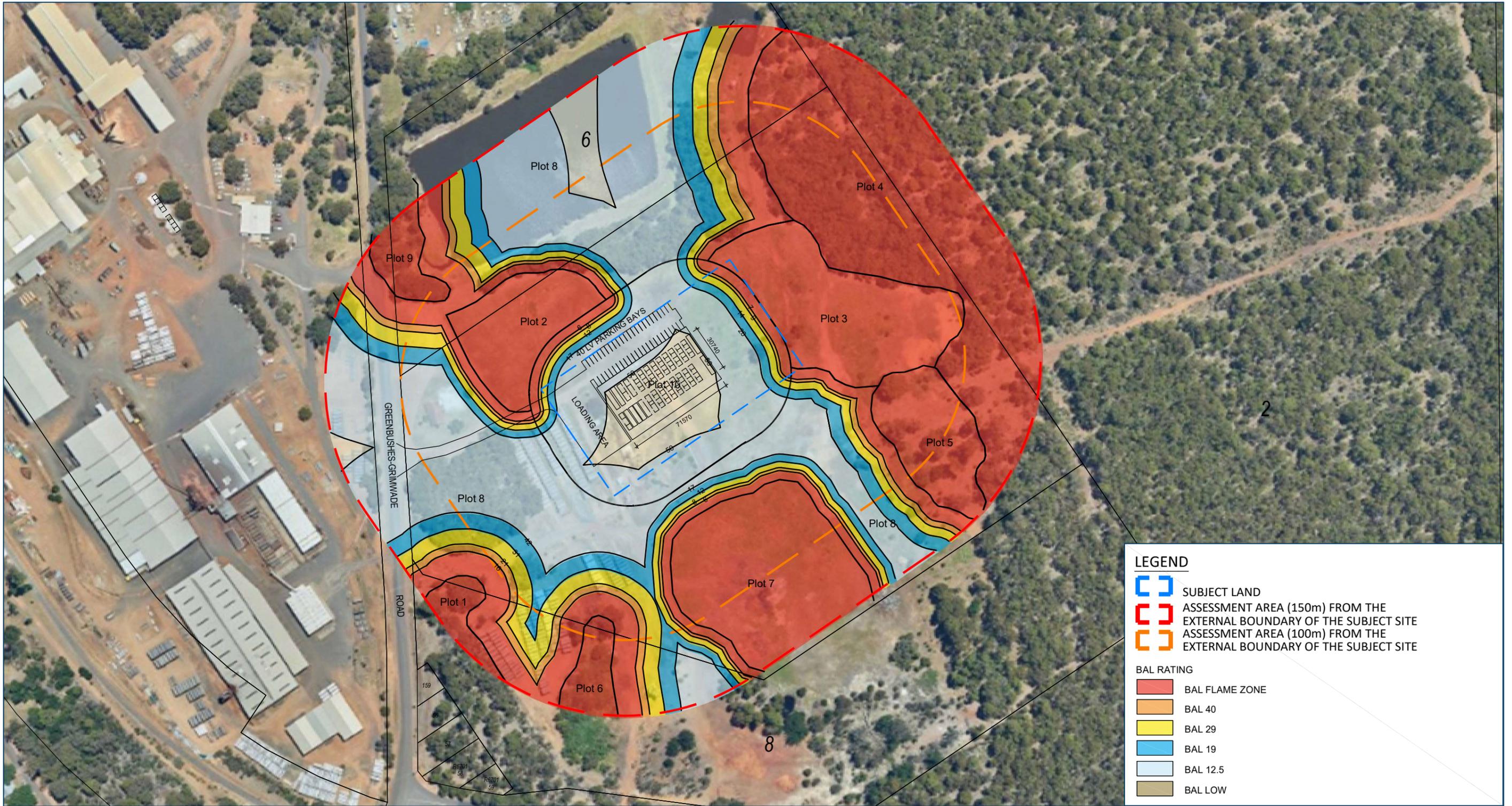
JOB CODE:  
CAT GRE ZB

DATE:  
12.09.2022



**Allering & Associates**

Town Planners, Advocates  
and Subdivision Designers



# BAL CONTOUR MAP

LOT 7 GREENBUSHES - GRIMWADE ROAD  
NORTH GREENBUSHES

SHIRE OF BRIDGETOWN - GREENBUSHES



**LEGEND**

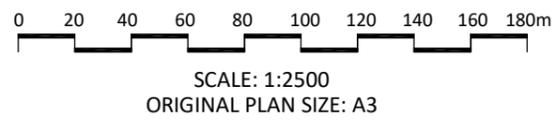
-  SUBJECT LAND
-  ASSESSMENT AREA (150m) FROM THE EXTERNAL BOUNDARY OF THE SUBJECT SITE
-  ASSESSMENT AREA (100m) FROM THE EXTERNAL BOUNDARY OF THE SUBJECT SITE
-  VEHICLE ACCESS & EGRESS POINT
-  DEDICATED WATER SUPPLY FOR BUSHFIRE FIGHTING PURPOSES
-  50m ASSET PROTECTION ZONE TO ACHIEVE BAL-LOW
-  EXISTING AREAS OF CLASSIFIED VEGETATION

**NOTE:** The remainder to the subject site, outside of the development area, to be managed by the landowner / operator to comply with the relevant local government annual firebreak notice issued under s33 of the Bush Fires Act 1954.

# BUSHFIRE MANAGEMENT STRATEGIES

LOT 7 GREENBUSHES - GRIMWADE ROAD  
NORTH GREENBUSHES

SHIRE OF BRIDGETOWN - GREENBUSHES



JOB CODE:  
CAT GRE ZB

DATE:  
12.09.2022



**Allering & Associates**

Town Planners, Advocates  
and Subdivision Designers

**APPENDIX 3 –  
SHIRE OF BRIDGETOWN-GREENBUSHES  
2021/2022 FIREBREAK AND FUEL HAZARD  
REDUCTION NOTICE**

# 2021/2022 FIREBREAK AND FUEL HAZARD REDUCTION NOTICE

**FOR ALL FIRES PHONE 000**

## ABOUT THIS NOTICE AND YOUR RESPONSIBILITIES

In accordance with Section 33 of the Bush Fires Act 1954, you are required to carry out fire prevention work on land owned or occupied by you as set out in this Notice by the dates specified. If the requirements of this Notice are not met by the due date, or are not completed to the satisfaction of an inspecting officer, an on the spot fine of **\$250** will be issued. The maximum fine for failure to comply is **\$5,000**. Council can also enter upon the land and carry out required works at the owner/occupier's expense.

## DATES YOU MUST REMEMBER

### RESTRICTED BURNING PERIOD

1 November to 14 December

### PROHIBITED BURNING PERIOD

15 December to 14 March

### RESTRICTED BURNING PERIOD

15 March to 10 May

This Notice outlines the requirements and restrictions for different property types and activities.

PROPERTY TYPE	CATEGORY	YEARLY COMPLIANCE DATES
Land under 5,000m <sup>2</sup>	Category 1	15 November to 10 May
Land over 5,000m <sup>2</sup> and under 4 hectares	Category 2	15 November to 10 May
Land over 4 hectares	Category 3	15 November to 10 May
Plantations and Harvested Plantations	Category 4	1 November to 10 May
Timber Mills	Category 5	1 November to 10 May

## 1. SPECIAL REQUIREMENTS AND ALTERNATIVES

### 1.1 SPECIAL REQUIREMENTS

The requirements of this Notice are considered the minimum standard of fire protection required to protect not only the individual property but the community as a whole. Council can impose additional requirements to remove or abate hazards if considered necessary. Any property subject to a Bush Fire Management Plan, or conditions imposed as a result of development approval, must comply with the approved conditions in addition to the requirements of this Notice.

### 1.2 ALTERNATIVES

If you consider it impracticable or environmentally damaging to carry out the requirements set out in this Notice, you can apply to Council by **1 October** for permission to provide alternative firebreaks or other fire prevention measures.

In the absence of written approval for alternative measures, the owner/occupier must adhere to the requirements of this Notice.

**Enquiries relating to this Firebreak and Fuel Hazard Reduction Notice or fire prevention in general should be directed to the Shire Ranger Services on (08) 9761 0800 or 0457 885 156**

## 2. WORK REQUIRED TO BE UNDERTAKEN

### 2.1 CATEGORY 1 – LAND UNDER 5,000M<sup>2</sup> (1/2 HECTARE) By 15 November until 10 May

Remove all flammable material from the property except living trees and shrubbery and maintain throughout the required period. Grass height not to exceed 100mm.

### 2.2 CATEGORY 2 – LAND OVER 5,000m<sup>2</sup> AND UNDER 4 HECTARES (10 ACRES) By 15 November until 10 May

All buildings must have an access track not less than 3 metres in width and a minimum 4 metre vertical clearance to overhanging vegetation. Around all buildings, haystacks and fuel storage areas, slash and remove all flammable materials likely to create a fire hazard, except living trees and shrubbery for at least 20 metres around the building, haystack and fuel storage area. Grass height not to exceed 100mm.

**In addition to the above, the following requirements also apply to Category 2 properties:**

**(a) Land used for cropping or pasture:** Construct and maintain a 3 metre wide firebreak with a minimum 4 metre vertical clearance to overhanging vegetation as near as practical to the perimeter of the property.

**(b) Land not used for cropping/pasture:** Remove all flammable material from the property except living trees and shrubbery and maintain throughout the required period. Grass height not to exceed 100mm. If choosing to forego firebreaks and instead remove flammable material from the property, the property owner must complete active fuel reduction on the property before 15 November and maintain it throughout the period of this Notice by means such as slashing, baling, and/or grazing by an appropriate number of livestock. If choosing to carry out fuel reduction by grazing of stock, the property owner must ensure that sufficient stock is used to ensure that all grass is reduced to a maximum height of 100mm by **15 November and maintained at that height until 26 April.**

### 2.3 CATEGORY 3 – LAND OVER 4 HECTARES (10 ACRES) By 15 November until 10 May

All buildings must have an access track not less than 3 metres in width and a minimum 4 metre vertical clearance to overhanging vegetation. Around all buildings, haystacks and fuel storage areas, slash and remove all flammable materials likely to create a fire hazard, except living trees and shrubbery for at least 20 metres around the building, haystack and fuel storage area. Grass height not to exceed 100mm.

**In addition to the above, the following requirements also apply to Category 3 properties:**

**(a) Managed land used for agriculture, viticulture or horticulture:** Managed land is not required to have firebreaks, although land owners and occupiers are encouraged to install them in strategic places to protect their property in the event of a fire. There must be active fuel reduction done on the property throughout the period of this Notice, by means such as slashing, baling, and/or grazing by an appropriate number of livestock.

**(b) Unmanaged land:** As a minimum, one of the following two methods must be implemented:

**(i) Fuel reduction:** Remove all flammable materials from the entire property except living trees and shrubbery and maintain throughout the required period. Grass height not to exceed 100mm; or

**(ii) Firebreak:** Construct and maintain a 3 metre wide firebreak with a minimum 4 metre vertical clearance to overhanging vegetation as near as practical to the perimeter of the property.

### 2.4 CATEGORY 4 – PLANTATIONS AND HARVESTED PLANTATIONS By 1 November until 10 May

The first row of trees must be a minimum of 15 metres from all formed public roads. A 10 metre wide firebreak shall be constructed along the internal boundaries of the plantation, along the boundaries of separate ownership, and all formed public roads. A firebreak 6 metres wide shall be provided in such a position that no compartment of a plantation exceeds 30 hectares. Where power lines pass through the plantation the clearing of vegetation must be in accordance with power supplier specifications. Trees adjoining the firebreak must be progressively pruned to a minimum height of 4 metres to maintain an effective width of firebreak. **Firebreak requirements for harvested plantations are the same as for plantations.** Any harvest residue heaps (slash piles) are to be a maximum of 4 metres wide; maximum 2 metres high; maximum 50 metres length with minimum 5 metre separation between heaps/piles; minimum 50 metres from any boundary or native vegetation islands; minimum 20 metres from powerlines or any areas of remnant vegetation and the first row of trees of any plantation.

### 2.5 CATEGORY 5 – TIMBER MILLS By 1 November until 10 May

Construct and maintain a 3 metre firebreak with a minimum 4 metre vertical clearance inside and along the boundary of the property as well as a 10 metre firebreak around all piles of sawdust, woodchips, bark and waste material.

## 3. REGULATED ACTIVITIES

**3.1 HARVESTING OPERATIONS** In addition to the individual Category requirements, any crop or plantation harvesting must have a drivable fire unit (not a trailer fire unit) of at least 400 litres in operational condition (full of water and in good working order) per harvesting machine within the compartment being harvested.

**3.2 STUMP GRINDING** The use of a stump grinder during Restricted and Prohibited Burning Periods is only permitted if a drivable fire unit of at least 400 litres in operational condition (full of water and in good working order) be within 200 metres of the stump grinder in the same compartment.

**3.3 BURNING OF GARDEN REFUSE AND RUBBISH** Prior to the burning of garden refuse and rubbish a 3 metre radius perimeter around the waste heap is to be cleared of all flammable material. Burning of garden refuse and rubbish is not permitted during the Prohibited Burning Period and during the Restricted Burning Periods it will require a burning permit from a Fire Control Officer.

**3.4 SLASHING DURING THE RESTRICTED AND PROHIBITED BURNING PERIODS** This clause does not apply to the mowing of residential lawns. During the Restricted Burning Period, any person conducting slashing must have available a fire extinguisher of not less than 7.5 litre capacity either attached to the machine or within 200 metres of where the machine is operating. During the Prohibited Burning Period, any person conducting slashing must have available a fire fighting unit (full of water and in good working order) of not less than 400 litre capacity within 200 metres of where the machine is operating.

**3.5 CAMP FIRES AND BARBECUES** Open wood camp fires, wood fuelled barbecues, solid fuel pizza ovens, and spit style rotisseries require a permit in the Restricted Burning Period and are not allowed in the Prohibited Burning Period. Use of a gas barbecue is permitted subject to a perimeter with a 3 metre radius around the barbecue being cleared of bush and flammable materials.

## 4. DEFINITIONS OF TERMS

**Firebreak:** ground from which all flammable material has been removed and on which no flammable material is permitted to accumulate during the period specified in this Notice.

**Flammable material:** accumulated fuel such as leaf litter, twigs, bark, grass over 100mm in height, timber boxes, cartons, paper and any combustible material, capable of carrying a running fire but excludes living standing trees and shrubs.

**Flammable fuel storage:** includes all petroleum based liquids, Liquefied Petroleum Gas, Liquefied Natural Gas, and any other combustible liquid or gaseous fuel.

**Fuel hazard:** has the same definition as "flammable material".

**Harvested plantation:** a plantation that has been clear felled but evidence of former use of the plantation remains in the form of tree stumps, pruning, limbs, and/or other accumulated tree refuse or logging residue.

**Hay stack:** a collection of hay including fodder rolls placed or stacked together.

**Managed land:** land over 4 hectares that is being actively used for agriculture, viticulture, horticulture etc. and that such use is clearly evident (excluding plantations).

**Plantation:** any area planted in pine, eucalypt or other commercially valued trees (excluding orchards and vineyards) which have been planted for commercial gain. Requires approval under the Town Planning Scheme.

**Unmanaged land:** land over 4 hectares that is not being actively and evidently used for agriculture, viticulture, horticulture etc. (excluding plantations).

By Order of the Council  
TP CLYNCH  
CHIEF EXECUTIVE OFFICER  
29 July 2021

## 5. FIRE PERMITS AND UNDERTAKING FUEL HAZARD REDUCTION WORK

**5.1 CONTRACTORS** - A list of contractors available to assist with fire prevention work is available by calling the Shire on 9761 0800. Council does not recommend or endorse any particular contractor.

**5.2 PERMITS** to burn are required for the whole of the restricted periods and can only be obtained from the Fire Control Officers listed overleaf.

**5.3 CAREFULLY READ** and adhere to all of the conditions of the permit as any breach or negligence could make you liable for any damage to neighbouring properties and/or infringements/penalties.

**5.4 ANY SPECIAL CONDITIONS** imposed by the Fire Control Officer/s when issuing permits must be strictly adhered to. Rangers will check that permit conditions are being complied with during the Restricted Burning Period.

**5.5 INFRINGEMENTS/ON THE SPOT FINES** of \$250 and upwards apply to any breaches of the permit conditions/special conditions. Contact your FCO or local Rangers if in doubt.

**5.6 THE PERMIT HOLDER** shall give notice of their intention to burn to the following:

(a) The Shire Office, no later than on the day when burning is to take place. Weekend burning must be notified by 4.00pm of the preceding Friday.

(b) The owner or occupier of adjoining land.

(c) The nearest Department of Biodiversity, Conservation and Attractions, Parks and Wildlife Service office, if the land is situated within 3km of a State Forest (Kirup or Pemberton). Notification should be given even when burning is in the open burning period.

**5.7 PERIOD OF NOTICE** to neighbours prior to burning cannot be more than 28 days or less than 4 days, although lesser notice may be determined by mutual agreement of all neighbours.

**5.8 NO PERMITS** will be issued for burning on public holidays during the Restricted or Prohibited Burning Periods.

**5.9 INCINERATORS** used to burn rubbish must be properly constructed. An open drum with or without a lid is not an authorised incinerator.

**5.10 BURNING ON THOROUGHFARES** – Prior to burning on a thoroughfare, verge, or road reserve, a person must obtain a Permit to Light a Fire on a Thoroughfare. The onus lies on the person burning to not only comply with the provisions of the *Activities on Thoroughfares* and Trading in Trading in Thoroughfares and Public Places Local Law and the Bush Fires Act 1954, but also to ensure there is no possibility of the fire escaping.

**5.11 FIREFIGHTING EQUIPMENT** residents are strongly encouraged to have and maintain firefighting equipment for protection of their own property.

## 6. HARVEST AND VEHICLE MOVEMENT BANS AND TOTAL FIRE BANS

**6.1 TOTAL FIRE BANS (TFB)** are declared by the Department of Fire and Emergency Services (DFES) following consultation with Local Governments due to extreme weather conditions or widespread fires stretching firefighting resources. During a TFB the lighting of any fires in the open air and any other activities that may start a fire are prohibited, including:

- (a) All open air fires for the purpose of cooking/camping, i.e. wood fuel barbecues, candles, pizza ovens;
- (b) Incinerators, welding, grinding, soldering, gas cutting, angle grinders and lawnmowers.

**Penalty:** Up to \$25,000 fine and/or a 12 month jail term. Exemptions may be granted by DFES and must be requested in writing.

**6.2 HARVEST AND VEHICLE MOVEMENT BANS** are imposed by Local Government under the Bush Fires Regulations 1954 Section 38A and Section 24C, when prevailing and/or anticipated weather conditions and/or when availability or response capacity of the local firefighting resources are reduced. A Harvest and Vehicle Movement Ban may be imposed for any length of time but is generally imposed for 'heat of the day' periods and may be extended or revoked as weather conditions change. During a Harvest and Vehicle Movement Ban, the use of engines, vehicles, plant and machinery is prohibited in order to mitigate the associated risk of causing or contributing to the spread of a bushfire.

## 7. VOLUNTEERING IN A BUSH FIRE BRIGADE

**7.1 BRIGADE MEMBERSHIP** If you are interested in joining your local Volunteer Bush Fire Brigade, contact the Fire Control Officer for your area or the Shire's Community Emergency Services Manager on 0428 611 125.

**7.2 VOLUNTEERS ATTENDING A FIRE IN THEIR OWN VEHICLE** must immediately report to the Fire Control Officer for safety and insurance purposes.

## 8. IN THE EVENT OF AN UNCONTROLLED FIRE

**8.1 FIRE REPORTS** All landowners and occupiers who incur a bushfire have an obligation to assist the Fire Control Officer to compile a Fire Report form.

**8.2 LANDOWNERS AND OCCUPIERS** must take all reasonable measures to control fires on their land, at their expense, regardless of how the fire started. Whilst local volunteer fire fighters will come out and assist in the control of the fire, landowners and occupiers are reminded that they are ultimately responsible for fires on their property, including monitoring

the fire after fire crews have left. Penalties apply and recovery of costs can be made by Council for those who do not comply with these provisions.

**8.3 RADIO STATIONS DURING A FIRE EMERGENCY** During a fire emergency all landowners and occupiers are encouraged to listen to ABC Radio as they are the official emergency broadcast radio station. Local frequencies are 1044, 684 and 558.

## 9. BUSH FIRE CONTROL OFFICERS

<b>Chief Fire Control Officer</b> Greg Kennedy 0427 577 821	<b>Deputy Chief Fire Control Officer</b> Chris Doherty 0438 952 202	<b>Shire - Community Emergency Services Manager</b> Lyndon Pearce 0428 611 125
<b>Bridgetown Bush Fire Brigade</b> Ed Bland 0427 614 540	<b>Bridgetown Townsite (Permits)</b> Donna Baker 0457 885 156	<b>Greenbushes</b> Tim Hingston 0427 189 007
<b>Catterick</b> Santo Pratico 0428 644 057	<b>Hester Brook</b> Keith Clothier 0428 611 787	<b>Kangaroo Gully</b> Chris Doherty 0438 952 202 Terry Flambard 0417 093 213
<b>Maranup</b> Hal Reid 0475 268 621	<b>Sunnyside</b> Martin Winchcombe 0427 619 085	<b>Wandillup</b> Robert Moyes 9761 2482
<b>Winnejup</b> Hugh Wheatley 0428 617 054	<b>Yornup</b> Annette Curry 0487 771 565	

## **APPENDIX 4 – STANDARDS FOR ASSET PROTECTION ZONES**

*(Extracted from the Guidelines for Planning in Bushfire Prone Areas version 1.4,  
Element 2, Explanatory Notes E2 and Schedule 1)*



## ELEMENT 2: SITING AND DESIGN OF DEVELOPMENT

### EXPLANATORY NOTES

#### E2 Managing an Asset Protection Zone (APZ) to a low threat state

An APZ is a low fuel area maintained around a habitable building to increase the likelihood that it will survive a bushfire, by providing a defensible space and reducing the potential for direct flame contact, radiant heat exposure and ember attack.

Vegetation management within an APZ should provide defensible space and be maintained to a low threat state, in perpetuity, in accordance with the requirements outlined in Schedule 1.

The width of an APZ varies with slope and vegetation type, however it should only be as wide as needed to ensure the potential radiant heat impact of a bushfire does not exceed  $29\text{kW}/\text{m}^2$  (BAL-29), or  $10\text{kW}/\text{m}^2$  where a building is identified for use as an on-site shelter. An APZ is generally not required where a building or development site achieves  $29\text{kW}/\text{m}^2$  (BAL-29) or lower in its pre-development state (prior to any vegetation clearing or modification).

An APZ should include an area of defensible space immediately adjoining a building, that is kept free from combustible items and obstructions, within which firefighting operations can be undertaken to defend the structure. Where a lot contains a building envelope, it may not be necessary for the entire building envelope to achieve  $29\text{kW}/\text{m}^2$  (BAL-29) as this may result in significant unnecessary clearing. It is recommended that the BMP identifies that a sufficient APZ can be accommodated within the building envelope, with the development site and associated APZ to be determined at the development approval stage.

An APZ should be contained within the boundaries of the lot on which the building is situated, except in instances where it is demonstrated that the vegetation on the adjoining land is managed in a low threat state, as per cl. 2.2.3.2 of AS 3959, such as a road, managed park, rocky outcrop or a water body.

The siting of a habitable building and associated APZ should aim to minimise the clearing of vegetation. The BMP should demonstrate that the proposed APZ has minimised the unnecessary loss of vegetation or potential for conflict with landscape or environmental objectives; and complies with environmental approvals/exemptions (where necessary). A re-design or reduction in lot yield may be necessary to minimise the removal and modification of remnant vegetation.

It is recommended that development be located on flat areas or slopes less than 20 degrees (especially where classified vegetation is located downslope to a building) and away from ridge tops, crests or narrow gullies, as bushfire can spread rapidly in these areas. Circumstances where these locations may be suitable for development to occur include where the land is already cleared, and  $29\text{kW}/\text{m}^2$  (BAL-29) or lower can be achieved for the whole development site without the use of an APZ. To ensure soil stability within an APZ, vegetation removal on slopes exceeding 18 degrees is discouraged.

Figure 17: Topography considerations for building locations





## ELEMENT 2: SITING AND DESIGN OF DEVELOPMENT

### EXPLANATORY NOTES

Fine fuel load should be maintained to less than two tonnes per hectare, however this is often a subjective assessment. Reducing fuel load levels does not necessarily require the removal of existing vegetation. A combination of methods can be utilised to reduce fuel load such as raking, weed removal, pruning, mulching and/or the removal of plant material.

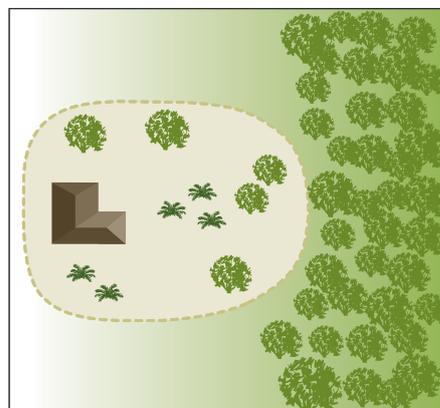
A simple method to estimate fuel load is to roughly equate one tonne of fuel load per hectare as 100 grams per square metre. For example, two tonnes per hectare of leaf litter is roughly 200 grams of leaf litter per square metre and eight tonnes per hectare is roughly 800 grams. Eucalyptus leaf litter is approximately 100 grams per handful, so two handfuls of litter per square metre will roughly equate to two tonnes per hectare. Different types of fine fuel, like mulch or pine needles may be more or less than a handful, however the 100 grams per square metre rule of thumb can still be used.

The landowner or proponent is responsible for maintaining an APZ in accordance with Schedule 1 - Standards for Asset Protection Zones. Ongoing maintenance of an APZ is usually enforced through the local government firebreak notice issued under section 33 of the *Bushfires Act 1954*, and/or through a condition of a development approval, which requires the implementation of measures identified within a BMP.

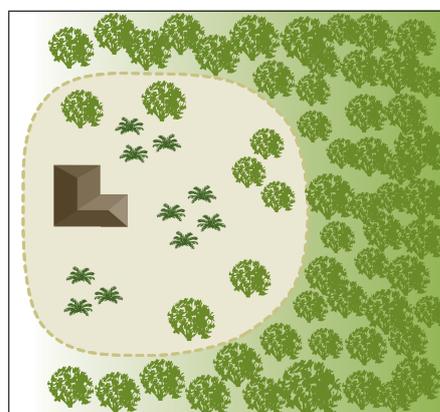
A copy of the firebreak notice and Schedule 1 should be included in a BMP specifically as a how-to guide for the landowner, and to demonstrate to decision-makers that the measures outlined in the BMP to achieve the appropriate BAL rating through provision and ongoing management of an APZ, can be implemented.

Regardless of whether an Asset Protection Zone exists in accordance with the acceptable solutions and is appropriately maintained, it should be noted that fire fighters are not obliged to protect an asset if they think the separation distance between the dwelling and vegetation is unsafe.

Hazard on one side



Hazard on three sides



#### Legend

-  APZ
-  trees
-  shrubs

Figure 18: Design of Asset Protection Zone

Refer to Schedule 1: Standards for Asset Protection Zones



## ELEMENT 2: SITING AND DESIGN OF DEVELOPMENT

### EXPLANATORY NOTES

#### E2 Landscaping and design of an asset protection zone

Landscaping, design, and maintenance of an APZ in a bushfire prone area can significantly improve the bushfire resilience of a building. An APZ should not be seen as an area entirely cleared of vegetation, but as a strategically designed space that gives holistic consideration to how existing or proposed vegetation or non-combustible features interact with, or affect the building's bushfire resilience.

A well designed APZ provides a greater level of vegetation management within the first few metres of a building with, for example, less vegetation or inclusion of non-combustible materials. The vegetation within the remainder of an APZ can increase further away from the building with carefully considered plant selection and landscaping techniques.

Strategic landscaping measures can be applied, such as replacing weeds with low flammability vegetation (refer to E2 Plant Flammability) to create horizontal and vertical separations between the retained vegetation. The accumulation of fine fuel load from different plants is an important consideration for ongoing maintenance in accordance with Schedule 1. For example, when planting ground covers under deciduous trees within an APZ, the total fine fuel load prescribed in Schedule 1 will include any dead plant material from ground covers and leaf litter from the trees.

Plant density and final structure and form of mature vegetation should be considered in the initial landscaping stages. For example, clumps of sapling shrubs planted at a density without consideration of future growth, may increase the bushfire risk as a clump will quickly grow to exceed 5m<sup>2</sup>. It should be noted that in some cases, a single shrub in a mature state may be so dense as to fill a 5m<sup>2</sup> clump alone.

The location of plants within an APZ is a key design technique. Separation of garden beds with areas of low fuel or non-combustible material, will break up fuel continuity and reduce the likelihood of a bushfire running through an APZ and subjecting a dwelling to radiant heat or direct flame contact. It is important to note, where mature trees are separated from a building by six metres, but the canopy has grown to extend or overhang a building, maintenance and pruning to remove the overhanging branches should be undertaken without the entirety of the tree being removed.

Mulches used within the APZ should be non-combustible. The use of stone, gravel, rock and crushed mineral earth is encouraged. Wood mulch >6mm in thickness may be used, however it is recommended that it is used in garden beds or areas where the moisture level is higher by regular irrigation. These materials could be sourced from non-toxic construction and demolition waste giving the added benefit of reducing the environmental impact of any 'hard landscaping' actions.

Combustible objects, plants, garden supplies such as mulches, fences made from combustible material, should be avoided within 10 metres of a building. Vines or climbing plants on pergolas, posts or beams, should be located away from vulnerable parts of the building, such as windows and doors. Non-flammable features can be used to provide hazard separation from classified vegetation, such as tennis courts, pools, lawns and driveways or paths that use inorganic mulches (gravel or crushed rock). Consider locating firewood stacks away from trees and habitable buildings.

Incorporation of landscaping features, such as masonry feature walls can provide habitable buildings with barriers to wind, radiant heat and embers. These features can include noise walls or wind breaks. Use of Appendix F of AS 3959 for bushfire resistant timber selection within areas of 29kW/m<sup>2</sup> (BAL-29) or below, or the use of non-combustible fencing materials such as iron, brick, limestone, metal post and wire is encouraged.

In addition to regular maintenance of an APZ, further bushfire protection can be provided at any time by:

- ensuring gutters are free from vegetation;
- installing gutter guards or plugs;
- regular cleaning of underfloor spaces, or enclosing them to prevent gaps;
- trimming and removing dead plants or leaf litter;
- pruning climbing vegetation (such as vines) on a trellis, to ensure it does not connect to a building, particularly near windows and doors;
- removing vegetation in close proximity to a water tank to ensure it is not touching the sides of a tank; and/or
- following the requirements of the relevant local government section 33 fire break notice, which may include additional provisions such as locating wood piles more than 10 metres from a building.



## ELEMENT 2: SITING AND DESIGN OF DEVELOPMENT

### EXPLANATORY NOTES

Preparation of a property prior to the bushfire season and/or in anticipation of a bushfire is beneficial even if your plan is to evacuate. As embers can travel up to several kilometres from a bushfire and fall into small spaces and crevices or land against the external walls of a building, best practice recommends that objects within the APZ are moved away from the building prior to any bushfire event. Objects may include, but are not limited to:

- door mats;
- outdoor furniture;
- potted plants;
- shade sails or umbrellas;
- plastic garbage bins;
- firewood stacks;
- flammable sculptures; and/or
- playground equipment and children's toys.

### E2 Plant flammability

There are certain plant characteristics that are known to influence flammability, such as moisture or oil content and the presence and type of bark. Plants with lower flammability properties may still burn during a bushfire event, but may be more resistant to burning and some may regenerate faster post-bushfire.

There are many terms for plant flammability that should not be confused, including:

- Fire resistant – plant species that survive being burnt and will regrow after a bushfire and therefore may be highly flammable and inappropriate for a garden in areas of high bushfire risk.
- Fire retardant – plants that may not burn readily or may slow the passage of a bushfire.
- Fire wise – plants that have been identified and selected based on their flammability properties and linked to maintenance advice and planting location within a garden.

Although not a requirement of these Guidelines, local governments may develop their own list of fire wise or fire-retardant plant species that suit the environmental characteristics of an area. When developing a recommended plant species list, local governments should consult with ecologists, land care officers or environmental authorities to ensure the plants do not present a risk to endangered ecological communities, threatened, or endangered species or their habitat.

When selecting plants, private landholders and developers should aim for plants within the APZ that have the following characteristics:

- grow in a predicted structure, shape and height;
- are open and loose branching with leaves that are thinly spread;
- have a coarse texture and low surface-area-to-volume ratio;
- will not drop large amounts of leaves or limbs, that require regular maintenance;
- have wide, flat, and thick or succulent leaves;
- trees that have bark attached tightly to their trunk or have smooth bark;
- have low amounts of oils, waxes, and resins (which will often have a strong scent when crushed);
- do not produce or hold large amounts of fine dead material in their crowns; and/or
- will not become a weed in the area.

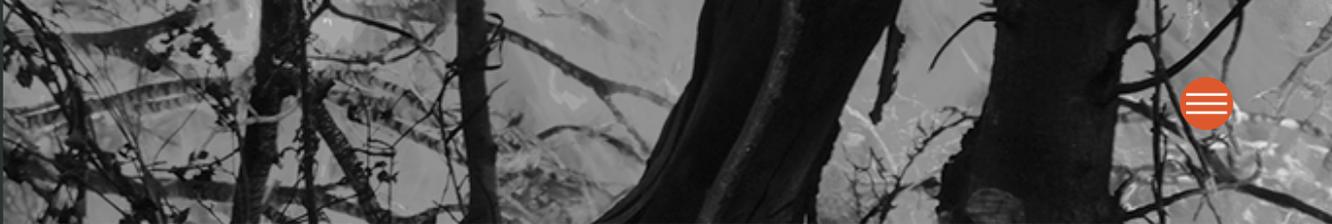
Refer to the WAPC Bushfire and Vegetation Fact Sheet for further information on clearing and vegetation management and APZ landscaping, design and plant selection reference material.



## ELEMENT 2: SITING AND DESIGN OF DEVELOPMENT

### SCHEDULE 1: STANDARDS FOR ASSET PROTECTION ZONES

OBJECT	REQUIREMENT
Fences within the APZ	<ul style="list-style-type: none"> <li>Should be constructed from non-combustible materials (for example, iron, brick, limestone, metal post and wire, or bushfire-resisting timber referenced in Appendix F of AS 3959).</li> </ul>
Fine fuel load (Combustible, dead vegetation matter <6 millimetres in thickness)	<ul style="list-style-type: none"> <li>Should be managed and removed on a regular basis to maintain a low threat state.</li> <li>Should be maintained at &lt;2 tonnes per hectare (on average).</li> <li>Mulches should be non-combustible such as stone, gravel or crushed mineral earth or wood mulch &gt;6 millimetres in thickness.</li> </ul>
Trees* (>6 metres in height)	<ul style="list-style-type: none"> <li>Trunks at maturity should be a minimum distance of six metres from all elevations of the building.</li> <li>Branches at maturity should not touch or overhang a building or powerline.</li> <li>Lower branches and loose bark should be removed to a height of two metres above the ground and/or surface vegetation.</li> <li>Canopy cover within the APZ should be &lt;15 per cent of the total APZ area.</li> <li>Tree canopies at maturity should be at least five metres apart to avoid forming a continuous canopy. Stands of existing mature trees with interlocking canopies may be treated as an individual canopy provided that the total canopy cover within the APZ will not exceed 15 per cent and are not connected to the tree canopy outside the APZ.</li> </ul>
<p><b>Figure 19:</b> Tree canopy cover – ranging from 15 to 70 per cent at maturity</p>	
<p>The figure consists of three sets of 2x2 grids, each representing a different percentage of tree canopy cover at maturity: 15%, 30%, and 70%. Each grid contains green circles of varying sizes representing tree canopies. The 15% grid shows sparse, widely spaced circles. The 30% grid shows a moderate density of circles. The 70% grid shows a very dense, overlapping canopy cover.</p>	
Shrub* and scrub* (0.5 metres to six metres in height). Shrub and scrub >6 metres in height are to be treated as trees.	<ul style="list-style-type: none"> <li>Should not be located under trees or within three metres of buildings.</li> <li>Should not be planted in clumps &gt;5 square metres in area.</li> <li>Clumps should be separated from each other and any exposed window or door by at least 10 metres.</li> </ul>
Ground covers* (<0.5 metres in height. Ground covers >0.5 metres in height are to be treated as shrubs)	<ul style="list-style-type: none"> <li>Can be planted under trees but must be maintained to remove dead plant material, as prescribed in 'Fine fuel load' above.</li> <li>Can be located within two metres of a structure, but three metres from windows or doors if &gt;100 millimetres in height.</li> </ul>



## ELEMENT 2: SITING AND DESIGN OF DEVELOPMENT

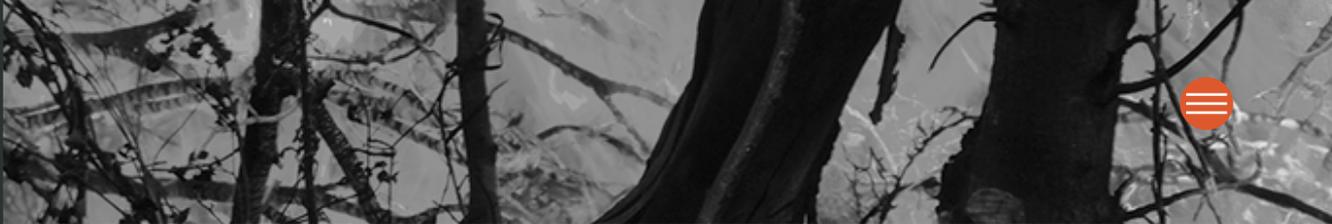
### SCHEDULE 1: STANDARDS FOR ASSET PROTECTION ZONES

OBJECT	REQUIREMENT
Grass	<ul style="list-style-type: none"> <li>• Grass should be maintained at a height of 100 millimetres or less, at all times.</li> <li>• Wherever possible, perennial grasses should be used and well-hydrated with regular application of wetting agents and efficient irrigation.</li> </ul>
Defendable space	<ul style="list-style-type: none"> <li>• Within three metres of each wall or supporting post of a habitable building, the area is kept free from vegetation, but can include ground covers, grass and non-combustible mulches as prescribed above.</li> </ul>
LP Gas Cylinders	<ul style="list-style-type: none"> <li>• Should be located on the side of a building furthest from the likely direction of a bushfire or on the side of a building where surrounding classified vegetation is upslope, at least one metre from vulnerable parts of a building.</li> <li>• The pressure relief valve should point away from the house.</li> <li>• No flammable material within six metres from the front of the valve.</li> <li>• Must sit on a firm, level and non-combustible base and be secured to a solid structure.</li> </ul>

\* Plant flammability, landscaping design and maintenance should be considered – refer to explanatory notes

## **APPENDIX 5 – WATER SUPPLY TECHNICAL REQUIREMENTS**

*(Extracted from the Guidelines for Planning in Bushfire Prone Areas version 1.4, Element 4, Schedule 2)*



## SCHEDULE 2: WATER SUPPLY DEDICATED FOR BUSHFIRE FIREFIGHTING PURPOSES

### 2.1 Water supply requirements

Water dedicated for firefighting should be provided in accordance with Table 7 below, and be in addition to water required for drinking purposes.

**Table 7:** Water supply dedicated for bushfire firefighting purposes

PLANNING APPLICATION	NON-RETICULATED AREAS
Development application	10,000L per habitable building
Structure Plan / Subdivision: Creation of 1 additional lot	10,000L per lot
Structure Plan / Subdivision: Creation of 3 to 24 lots	10,000L tank per lot <b>or</b> 50,000L strategic water tank
Structure Plan / Subdivision: Creation of 25 lots or more	50,000L per 25 lots or part thereof Provided as a strategic water tank(s) or 10,000L tank per lot

### 2.2 Technical requirements

#### 2.2.1 Construction and design

An above-ground tank and associated stand should be constructed of non-combustible material. The tank may need to comply with AS/NZS 3500.1:2018.

Below ground tanks should have a 200mm diameter access hole to allow tankers or emergency service vehicles to refill direct from the tank, with the outlet location clearly marked at the surface. The tank may need to comply with AS/NZS 3500.1:2018. An inspection opening may double as the access hole provided that the inspection opening meets the requirements of AS/NZS 3500.1:2018. If the tank is required under the BCA as part of fire hydrant installation, then the tank will also need to comply with AS 2419.

Where an outlet for an emergency service vehicle is provided, then an unobstructed, hardened ground surface is to be supplied within four metres of any water supply.

#### 2.2.2 Pipes and fittings

All above-ground, exposed water supply pipes and fittings should be metal. Fittings should be located away from the source of bushfire attack and be in accordance with the applicable section below, unless otherwise specified by the local government.

##### 2.2.2.1 Fittings for above-ground water tanks:

- Commercial land uses: 125mm Storz fitting; or
- Strategic water tanks: 50mm or 100mm (where applicable and adapters are available) male camlock coupling with full flow valve; or
- Standalone water tanks: 50mm male camlock coupling with full flow valve; or
- Combined water tanks: 50mm male camlock coupling with full flow valve or a domestic fitting, being a standard household tap that enables an occupant to access the water supply with domestic hoses or buckets for extinguishing minor fires.

##### 2.2.2.2 Remote outlets

In certain circumstances, it may be beneficial to have the outlet located away from the water supply. In such instances in which a remote outlet is to be used, the applicant should consult the local government and DFES on their proposal.

