

# Ordinary Council Meeting Minutes

*22 November 2022*

*3.30pm*



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## SHIRE OF DALWALLINU

**MINUTES** of the Ordinary Meeting of Council held at the Council Chambers, Shire Administration Centre, Dalwallinu on Tuesday 22 November 2022 at 3.30pm.

### **1 OPENING & ANNOUNCEMENT OF VISITORS**

The Chairperson (President) opened the meeting at 3.30 pm.

### **2 ANNOUNCEMENTS OF PRESIDING MEMBER**

Nil

### **3 ATTENDANCE RECORD**

#### **3.1 Present**

Shire President	Cr KL Carter
Deputy Shire President	Cr SC Carter
	Cr KJ Christian
	Cr JL Counsel
	Cr DS Cream
	Cr MM Harms
	Cr KM McNeill
	Cr NW Mills
Chief Executive Officer	Mrs JM Knight
Executive Assistant	Mrs DJ Whitehead

#### **Public**

Mr Barton Sprigg	Shermac
Mr Andrew Davies	Tractus

#### **3.2 Apologies**

Nil

#### **3.3 Leave of Absence Previously Granted**

Nil

### **4 DECLARATIONS OF INTEREST**

Cr SC Carter – Proximity Interest in Item 9.2.1

### **5 PUBLIC QUESTION TIME**

Nil



## 6 MINUTES OF PREVIOUS MEETINGS

### 6.1 Ordinary Council Meeting – 25 October 2022

#### **MOTION 10000**

Moved Cr JL Counsel  
Seconded Cr NW Mills

That the Minutes of the Ordinary Meeting of Council held 25 October 2022 be confirmed with the following changes:

Item 14.4 – Amend *Gareth Barnes and Sarah Tholstrup* to Judith Wheildon Barnes & Alan Jeffery Barnes & Gareth Barnes & Sarah Tholstrup as trustees for the Barnes Housing Trust

**CARRIED 8/0**

## 7 PETITIONS/PRESENTATIONS/DEPUTATIONS/DELEGATES/REPORTS/SUBMISSIONS

### 7.1 Petitions

Nil

### 7.2 Presentations

Nil

### 7.3 Deputations

Nil

### 7.4 Delegates Reports/Submissions

Nil

## 8 METHOD OF DEALING WITH AGENDA BUSINESS (Show of hands)

As agreed.



**9 REPORTS**

**9.1 WORKS & SERVICES**

There were nil reports this month for Works & Services.



3.33pm Cr SC Carter declared a Proximity Interest in Item 9.2.1 and left the meeting.

## 9.2 PLANNING & DEVELOPMENT

### 9.2.1 Subdivision Application No 162990 – Lot 99 Dalwallinu-Kalannie Rd, Dalwallinu\*

<b>Report Date</b>	22 November 2022
<b>Applicant</b>	Taylor Burrell Barnett
<b>File Ref</b>	Property files – R15867
<b>Previous Meeting Reference</b>	Nil
<b>Prepared by</b>	Doug Burke, Manager Planning & Development Services
<b>Supervised by</b>	Jean Knight, Chief Executive Officer
<b>Disclosure of interest</b>	Nil
<b>Voting Requirements</b>	Simple Majority
<b>Attachments</b>	Supporting documentation

#### **Purpose of Report**

The Western Australian Planning Commission (WAPC) has referred an application for the subdivision of the subject property to Council for comment (refer to attachment). Council has until 16 December 2022 to provide the WAPC with their response.

The recommendation is that the WAPC be advised that the Shire of Dalwallinu supports in principle the proposed freehold subdivision.

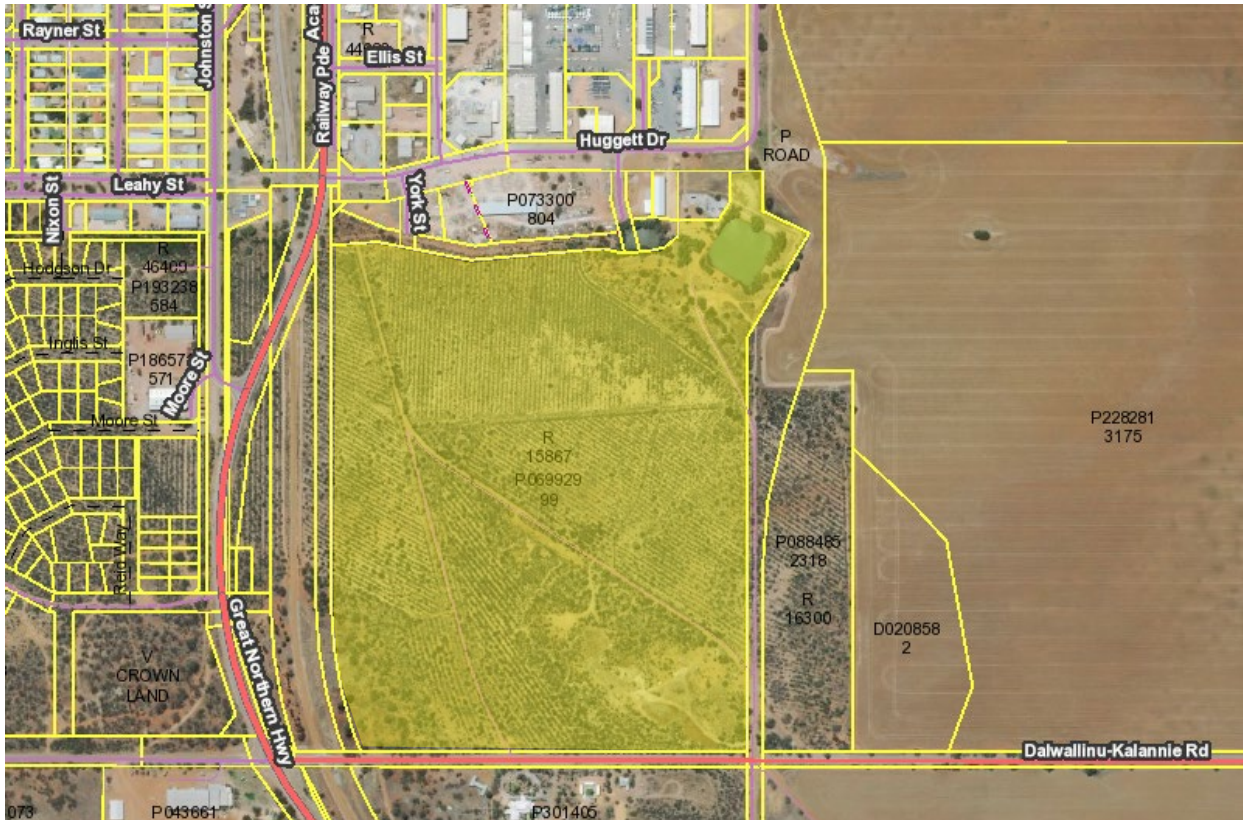
#### **Background**

Subject Property:	Lot 99 Dalwallinu-Kalannie Road, Dalwallinu (R15867)
Land Use Zoning:	Industrial
Property Owner:	Crown Reserve – Vested in Shire of Dalwallinu
Applicant:	Toddtville Prospecting P/L T/as Taylor Burrell Barnett
Consent Authority:	Western Australia Planning Commission
Proposed Development:	Creation of 9 lots including 1 balance lot and 2 road reserves
Value of Development:	N/A

Taylor Burrell Barnett has submitted a proposal to subdivide the existing parcel into 9 lots connected to the existing road system with 2 road reserves. The property is located on the western end of the Dalwallinu-Kalannie Road near the intersection with Great Northern Highway. The property is zoned 'General Industry' under the Local Planning Scheme. The property has previously been cleared for agriculture.







Location of subject property (SIP)

**Consultation**

Nil

**Legislative Implications**

State

*Planning and Development Act 2005*

*Shire of Dalwallinu Town Planning Scheme N° 2*

**Policy Implications**

Nil

**Financial Implications**

Nil

**Strategic Implications**

*The Dalwallinu Local Planning Strategy 2013.*

In the strategy is embedded a Mission Statement that encourages the Shire to;

*‘Ensure general, service and light industries are adequately catered for in Dalwallinu.’*

And by way of action to:

*‘Identify land to be zoned for general, service and light industry to cater for the growing industrial activity in the townsite.’*

**Site Inspection**

An inspection of the site has been undertaken.



## Triple Bottom Line Assessment

### Economic implications

There are no known significant economic implications associated with this proposal.

### Social implications

There are no known significant social implications associated with this proposal.

### Environmental implications

There are no known significant environmental implications associated with this proposal.

## Officer Comment

The proposed subdivision will add 9 lots and a total area of 59,301m<sup>2</sup> to the General Industry estate. The smallest block (Lot 4) will be 4,684m<sup>2</sup> whilst the largest block (Lot 3) will be 11,763m<sup>2</sup> in area. The average size will be 7412m<sup>2</sup> in area.

The area is not connect to the sewerage reticulated system due to geographical constraints. This however does not preclude development as Part 5.2.1 of the Government Sewerage Policy (September 2021) allows for lots >2000m<sup>2</sup> to be created. Part 5.7.3 of the Dalwallinu Local Planning Scheme requires that:

*'Unsewered industrial development will be restricted to 'dry industry' type (ie. industries predicted to generate wastewater for disposal on-site of a daily rate of less than 540 litres per 1000m<sup>2</sup>).'*

## Officer Recommendation/Resolution

### **MOTION 10001**

Moved            Cr DS Cream  
Seconded       Cr KM McNeill

That Council endorse the proposed subdivision and direct the Chief Executive Officer to advise the Western Australian Planning Commission that there is no objection to the proposal for Lot 99 Dalwallinu-Kalannie Road, Dalwallinu to be subdivided as per the plan of subdivision accompanying the Application No: 162990.

**CARRIED 7/0**

3.34pm      Cr SC Carter re-entered the meeting.



Our Ref: 22/084

24 October 2022

**Attention: Land Use Planning, Wheatbelt Region**

*Issued electronically via Department of Planning, Lands and Heritage E-Lodgement System*

Dear Sir/Madam

## APPLICATION FOR FREEHOLD (INDUSTRIAL) SUBDIVISION – LOT 99 DALWALLINU-KALANNIE ROAD, DALWALLINU

On behalf of our Client, DevelopmentWA, Taylor Burrell Barnett submits the enclosed Application for Approval of Freehold Subdivision to the Western Australian Planning Commission (WAPC) for consideration. In support of this application please find enclosed the following documentation (Attachments):

1. A copy of the Plan of Subdivision (refer Attachment 1);
2. A copy of the current Certificate of Title (refer Attachment 2);
3. A copy of the signed Landowner Consent Form (refer Attachment 3);
4. A copy of the Bushfire Management Plan (refer Attachment 4);
5. A copy of the previous Subdivision Approval WAPC Ref: 153314 (refer Attachment 5); and
6. A copy of Servicing and Geotechnical Investigation Reports (refer Attachment 6)

### SUBJECT SITE

Situated in the Wheatbelt town of Dalwallinu, the subject site is located approximately 400m southeast of the Town Centre. The land is positioned adjacent the regional rail network and will facilitate the extension of the existing industrial precinct.

The subject site for the subdivision proposal is Lot 99 Dalwallinu - Kalannie Road, indicated on **Attachment 1**, and is located within the Shire of Dalwallinu municipality. The details for Lot 99 are as follows:

Table 1 – Lot Summary

Lot No.	Land Area (ha)	CT Vol/Fol	Plan No.	Ownership
99	37.6906	LR3162/110	DP69929	State of Western Australia

## Surrounding Land Uses

The surrounding land uses consist of:

- Land immediately north and beyond the subject site consists of an existing industrial precinct that is zoned 'General Industry' under the Shire of Dalwallinu LPS2.
- An existing undeveloped road reserve abuts the site to the west. Beyond the western road reserve, the regional freight rail network, zoned 'Railway', bounds the subject site from the Dalwallinu townsite.
- An unsealed road bounds portion of the subject site to the east as 'Rural' zoned land is located beyond the undeveloped road reserve.
- Dalwallinu-Kalannie Road abuts Lot 99 to the south. Rural zoned land is situated beyond the regional road.

## PLANNING FRAMEWORK

### Zoning

The majority of the subject site is zoned 'General Industry' under the Shire of Dalwallinu Local Planning Scheme No.2 (LPS2), and development is subject to the zone objectives set out under LPS2. To the north eastern corner, a portion of the site is reserved for Public Purpose for drainage.

The objective of the General Industry Zone is to:

- To provide for general industry, the storage and distribution of goods and associated uses, which by the nature of their operations may need to be separated from residential and other sensitive areas.*
- To discourage non-industrial uses to minimise land use conflicts and address environmental impacts.*
- To provide a location for diverse industries that would otherwise have a detrimental impact on the other uses in close vicinity.*
- To encourage the provision of landscaping to ensure the industrial development is appropriately screened from the main road.*
- To provide a location where separate heavy vehicular access is provided.*
- To provide a location for regional and local depots, warehouses, and large vehicle parking and servicing areas.*
- To provide for a range of employment opportunities.*

Given the nature of the proposal, it is considered that the proposed subdivision is consistent with the Shire's objectives for the General Industry zone.

### Development Control Policy 4.1 – Industrial Subdivision

The DCP 4.1 – Industrial Subdivision provides guidance towards the development of Industrial subdivisions through matters such as design, shape of lots, road layout, servicing and open space requirements. The policy seeks to manage and encourage well designed industrial areas whilst responding to the need to protect the amenity of surrounding land uses.

It is considered that the subdivision design reflects the policy measures and objects of DC Policy 4.1.

### State Planning Policy 3.7 – Planning in Bushfire Prone Areas

The policy *SPP 3.7 – Bushfire Prone Areas* seeks to implement effective, risk-based land use planning and development to improve the protection of property and infrastructure from bushfire impacts. The policy provides the foundation for addressing bushfire risk management through efficient land use planning and development practices.

Lot 99 has been identified as a bushfire prone area, as such, a Bushfire Management Plan (BMP) inclusive of a Bushfire Attack Level (BAL) assessment has been prepared for the proposed subdivision, refer to **Attachment 4**. The results from the BMP and BAL assessment will inform the construction standards and bushfire mitigation practices that will need to be implemented in order to achieve a BAL rating of BAL-12.5.

#### State Planning Policy 4.1 – Industrial Interface

The policy *SPP 4.1 – Industrial Interface* seeks to prevent conflict and encroachment between industrial and sensitive and uses, ensuring that planning decisions consider the locational constraints of land uses, the current and future benefits and implications on the future communities. The policy aims to achieve:

- a) Appropriate siting and long-term operational certainty for industry.
- b) Appropriate siting of sensitive land uses for the protection of health and amenity for people and environment.
- c) Sustainable land use planning and development outcomes consistent with broader State strategic planning objectives.

Given the positioning and nature of future land uses immediately surrounding, the proposed subdivision is considered to meet the key objectives of *SPP 4.1 – Industrial Interface*.

#### State Planning Policy 5.4 – Road and Rail Noise

The policy *SPP 5.4 – Road and Rail Noise* is to minimise the adverse impact of road and rail noise on noise-sensitive land-use and/ or development within the specified trigger distance of strategic freight and major traffic routes and other significant freight and traffic routes. SPP 5.4 seeks to ensure that the community is protected from unreasonable levels of transport noise, whilst also ensuring the future operations of these transport corridors.

Given the nature of the future land use being industry, this is not a noise-sensitive land use as such no mitigation measures are required.

### PROPOSED SUBDIVISION

The plan of subdivision proposes the creation of 8 industrial lots, two road reserves and one balance lot, refer to **Attachment 1**. The future development of lots will contribute to the extension of the existing industrial precinct north of the site, and provide variations in lot size in order to provide an opportunity for a range of industrial uses. It is noted this area was subject of a previous subdivision approval which is primarily in keeping with current design, refer **Attachment 5**.

The proposed subdivision follows the request and agreement to relinquish the management order for Reserve 15867 on Lot 99, Deposited Plan 69969 for the detailed subdivision area subject to this application. The balance of title will remain under the current management order including, the public purpose area for drainage.

#### Lot Layout and Land Use

The proposed subdivision consists of:

- 8 x Industrial Lots (Lots 1-8);
- 2 x Internal Roads (Road 1 and 2); and
- 1 x Balance Lot (30.6689ha)

The proposed yield and lot product mix is shown in **Table 2** below:

Lot Yield			Lot Area	
Size	No. Lots	% Total Lots	Average Size	% of Total Area
4000m <sup>2</sup> – 4999m <sup>2</sup>	1	12.5%	4684 m <sup>2</sup>	7.9%
5000m <sup>2</sup> - 9999m <sup>2</sup>	4	50.0%	5683 m <sup>2</sup>	38.33%
10000m <sup>2</sup> – 19999m <sup>2</sup>	3	37.5%	10628 m <sup>2</sup>	53.77%
<b>No. Balance Lots</b>	<b>1</b>	<b>Total No. Lots</b>	<b>9</b>	
<b>Minimum Lot Size: 4684m<sup>2</sup></b>		<b>Average Lot Size: 7412m<sup>2</sup></b>		
<b>Maximum Lot Size: 11762 m<sup>2</sup></b>		<b>Total Lot Area: 59301m<sup>2</sup></b>		

Table 2 Lot Product Summary

The proposed industrial lots range in size from 4684m<sup>2</sup> to 11762m<sup>2</sup>, with an average lot size of 7412m<sup>2</sup>. The proposal seeks to supply a range of varying lot sizes to accommodate for a variety of specific industrial uses.

## TECHNICAL CONSIDERATIONS

### Bushfire Management

The subject site is located within a bushfire prone area. As such, a BMP has been prepared with an accompanying BAL assessment. The results of the BAL assessment within the attached BMP shows that all proposed lots have capacity to achieve an appropriate separation from bushfire threats and mitigate the impacts on the future development.

### Environment

As mentioned above, the proposed subdivision follows the request and agreement to relinquish the management order for Reserve 15867 on Lot 99, Deposited Plan 69969 for the subdivision area subject to this application. The balance of title will remain under the current management order including, the public purpose area for drainage.

### Movement Network

The proposed subdivision will attain access to Huggett Drive via the extension of the existing cul-de-sac north of the subject site. All lots are to be accessed via direct frontage to a dedicated road all of which have been design to the requirements of the *DCP 4.1 – Industrial Subdivision*.

The internal road widths for the proposed development, and remains consistent with the specifications of DCP 4.1.

## Services

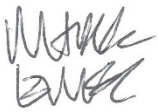
The construction of new roads, provision of power, stormwater management, water connections to the proposed lots and sewerage management and adequate filling of the land will be required to ensure development meets engineering requirements. As outlined above this area has been subject of a previous subdivision approval which is in keeping with current design and, as such a substantial amount of work by the project engineers regarding servicing has occurred. It is noted this information will need to be reviewed upon determination of this application but is supplied for reference, refer to **Attachment 6**.

## CONCLUSION

The proposed subdivision is consistent with all key structural elements of the planning framework and warrants the support from the Shire of Dalwallinu and the Department of Planning, Lands and Heritage.

We kindly request the opportunity to review draft conditions for the application prior to their finalisation. Should you require any further information or clarification please do not hesitate to contact the undersigned or Eoghan McElwee from our Office on 08 9226 4276.

Yours faithfully



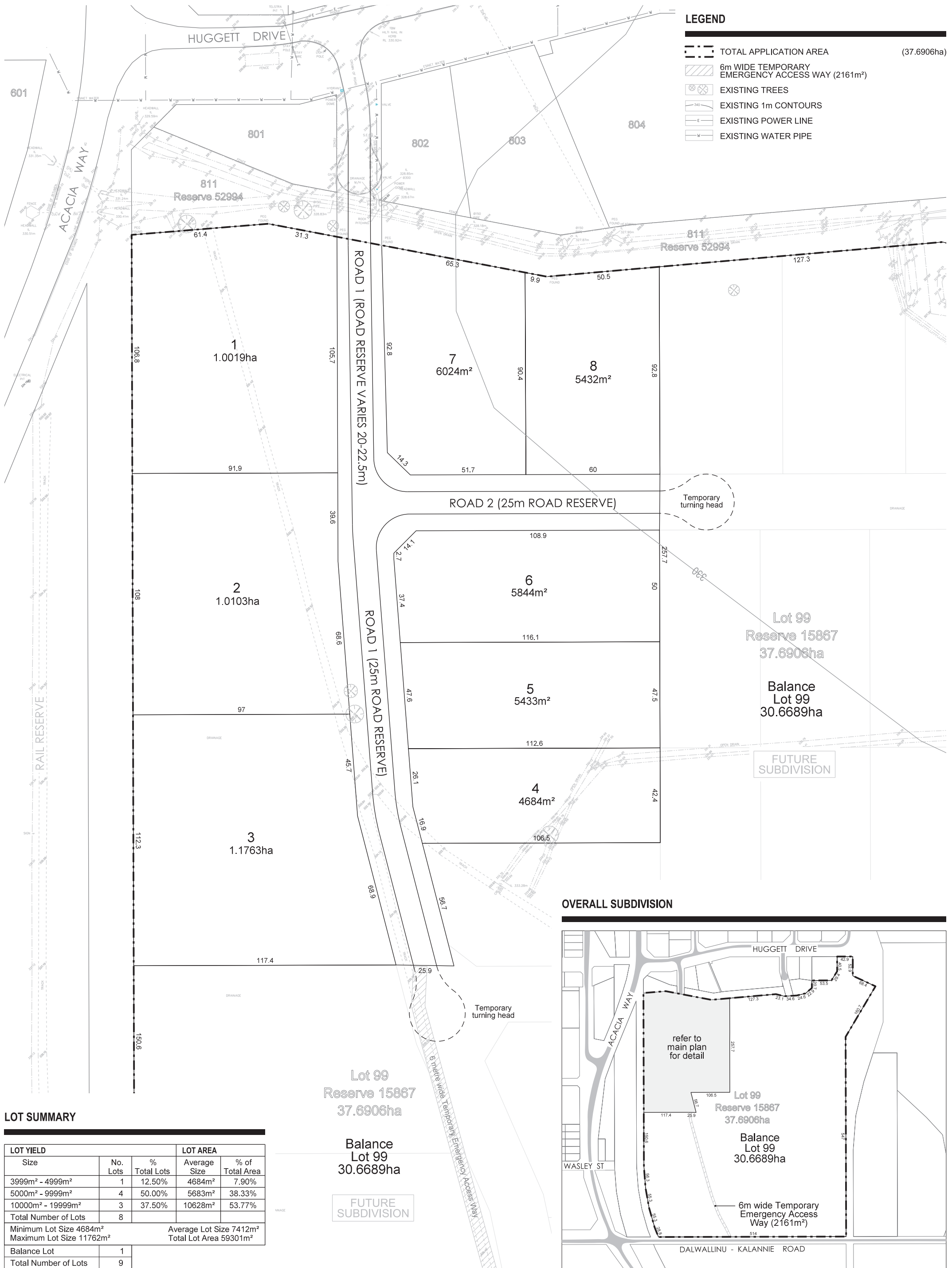
MARK ELLISS  
ASSOCIATE

cc Naresh Goordeen & Sharon Bowley – DevelopmentWA

# Attachment 1

Plan of Subdivision





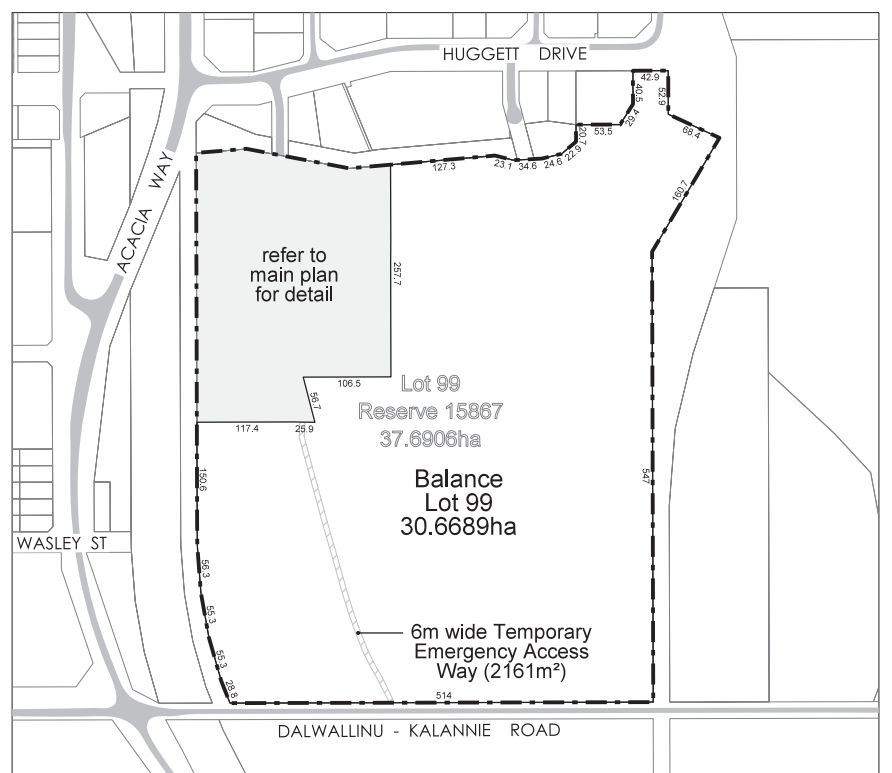
**LEGEND**

- TOTAL APPLICATION AREA (37.6906ha)
- 6m WIDE TEMPORARY EMERGENCY ACCESS WAY (2161m<sup>2</sup>)
- EXISTING TREES
- EXISTING 1m CONTOURS
- EXISTING POWER LINE
- EXISTING WATER PIPE

**LOT SUMMARY**

LOT YIELD		LOT AREA		
Size	No. Lots	% Total Lots	Average Size	% of Total Area
3999m <sup>2</sup> - 4999m <sup>2</sup>	1	12.50%	4684m <sup>2</sup>	7.90%
5000m <sup>2</sup> - 9999m <sup>2</sup>	4	50.00%	5683m <sup>2</sup>	38.33%
10000m <sup>2</sup> - 19999m <sup>2</sup>	3	37.50%	10628m <sup>2</sup>	53.77%
Total Number of Lots	8			
Minimum Lot Size 4684m <sup>2</sup>			Average Lot Size 7412m <sup>2</sup>	
Maximum Lot Size 11762m <sup>2</sup>			Total Lot Area 59301m <sup>2</sup>	
Balance Lot	1			
Total Number of Lots	9			

**OVERALL SUBDIVISION**



**Plan of Subdivision - Freehold (Industrial)**  
 LOT 99 DALWALLINU - KALANNIE ROAD, DALWALLINU

**DRAFT**

plan: 22/084/001C  
 date: 18/10/2022  
 scale: 1:1,500@A3 | 1:750@A1  
 0 10 20 30m

designed: ME  
 checked: ME  
 drawn: MH  
 Taylor Burrell Barnett Town Planning & Design  
 Level 7, 160 St Georges Terrace, Perth WA 6000  
 e: admin@tbbplanning.com.au  
 p: (08) 9226 4276



# Attachment 2

Certificate of Title



REGISTER NUMBER <b>99/DP69929</b>	
DUPLICATE EDITION <b>N/A</b>	DATE DUPLICATE ISSUED <b>N/A</b>

VOLUME **LR3162** FOLIO **110**

**RECORD OF CERTIFICATE  
OF  
CROWN LAND TITLE  
UNDER THE TRANSFER OF LAND ACT 1893  
AND THE LAND ADMINISTRATION ACT 1997  
NO DUPLICATE CREATED**

The undermentioned land is Crown land in the name of the STATE OF WESTERN AUSTRALIA, subject to the interests and Status Orders shown in the first schedule which are in turn subject to the limitations, interests, encumbrances and notifications shown in the second schedule.

*BGRoberts*  
REGISTRAR OF TITLES 

**LAND DESCRIPTION:**

LOT 99 ON DEPOSITED PLAN 69929

**STATUS ORDER AND PRIMARY INTEREST HOLDER:  
(FIRST SCHEDULE)**

**STATUS ORDER/INTEREST:** RESERVE UNDER MANAGEMENT ORDER

**PRIMARY INTEREST HOLDER:** SHIRE OF DALWALLINU

(XE G846094 ) REGISTERED 22/7/1998

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

- 1. L864530 RESERVE 15867 FOR THE PURPOSE OF WATER AND RECREATION AND PROTECTION OF NATURAL VEGETATION REGISTERED 22/2/2012.  
G846094 MANAGEMENT ORDER. CONTAINS CONDITIONS TO BE OBSERVED. REGISTERED 22/7/1998.

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.  
Lot as described in the land description may be a lot or location.

-----END OF CERTIFICATE OF CROWN LAND 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: DP69929  
PREVIOUS TITLE: LR3109-636  
PROPERTY STREET ADDRESS: NO STREET ADDRESS INFORMATION AVAILABLE.  
LOCAL GOVERNMENT AUTHORITY: SHIRE OF DALWALLINU  
RESPONSIBLE AGENCY: DEPARTMENT OF PLANNING, LANDS AND HERITAGE (SLSD)

NOTE 1: L864529 CORRESPONDENCE FILE 03707-1914-03RO

# Attachment 3

Landowner Consent Form

Western Australian Planning Commission  
C/-Planning Administration  
Department Planning, Lands & Heritage  
140 William Street  
PERTH W A 6000

Dear Planning Administration Team Leader,

**Lot 99 on Deposited Plan 69929 – Consent of Landowner**

I refer to the application to subdivide the land known as Lot 99 Huggett Drive, Dalwallinu, more fully described at Lot 99 on Deposited Plan 69929 contained within Certificate of Title Volume LF3162 Folio 110 (“**the Application**”).

This application was made by Taylor Burrell in the capacity of planning consultant for the landowner.

The following person recorded as the owner of the land:

SHIRE OF DALWALLINU

I, the abovementioned person, hereby consent to the Application being made in relation to the land described above.

Further, I have appointed Taylor Burrell Barnett to act for me as my authorised representative.

If you have any further queries with regard to this matter, please do not hesitate to contact the undersigned on 9661 0500 or email [ceo@dalwallinu.wa.gov.au](mailto:ceo@dalwallinu.wa.gov.au).

Yours faithfully,



Jean Knight

**CHIEF EXECUTIVE OFFICER**

7 September 2022



# Attachment 4

Bushfire Management Plan

# Bushfire management plan/Statement addressing the Bushfire Protection Criteria coversheet

Site address:

Site visit: Yes  No

Date of site visit (if applicable): Day  Month  Year

Report author or reviewer:

WA BPAD accreditation level (please circle):

Not accredited  Level 1 BAL assessor  Level 2 practitioner  Level 3 practitioner

If accredited please provide the following.

BPAD accreditation number:  Accreditation expiry: Month  Year

Bushfire management plan version number:

Bushfire management plan date: Day  Month  Year

Client/business name:

	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)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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 bushfire protection criteria elements)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Is the proposal any of the following (see [SPP 3.7 for definitions](#))?

	Yes	No
Unavoidable development (in BAL-40 or BAL-FZ)	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Strategic planning proposal (including rezoning applications)	<input type="checkbox"/>	<input checked="" type="checkbox"/>
High risk land-use	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Vulnerable land-use	<input type="checkbox"/>	<input checked="" type="checkbox"/>


None of the above

**Note:** Only if one (or more) of the above answers in the tables is yes should the decision maker (e.g. local government or the WAPC) refer the proposal to DFES for comment.

Why has it been given one of the above listed classifications (E.g. Considered vulnerable land-use as the development is for accommodation of the elderly, etc.)?

The information provided within this bushfire management plan to the best of my knowledge is true and correct:

Signature of report author or reviewer



Date



Dalwallinu - Industrial

# Bushfire Management Plan (BMP)

- ◇ *Assessment of potential bushfire impact*
- ◇ *Environmental conservation*
- ◇ *Assessment of the development's ability to acceptably mitigate bushfire risk through application of required and/or additional bushfire protection measures*
- ◇ *Creation of responsibilities to implement and maintain protection measures*

30.28134, 116.6637, 340.4m, 154°  
21 Sep 2022 12:12:01

Produced to meet the relevant requirements of STATE PLANNING POLICY 3.7 Planning in Bushfire Prone Areas & Guidelines

## Address / Location

Lot 99 Dalwallinu-Kalannie Road, Dalwallinu

Shire of Dalwallinu

Subdivision Application

7 October 2022

Job Reference No: 15463d



**BPP GROUP PTY LTD T/A BUSHFIRE PRONE PLANNING**

ACN: 39 166 551 784 | ABN: 39 166 551 784

LEVEL 1, 159-161 JAMES STREET  
GUILDFORD WA 6055PO BOX 388  
GUILDFORD WA 6935

08 6477 1144 | admin@bushfireprone.com.au

**DOCUMENT CONTROL**

PREPARATION					
Author:	Sarina Gorman (BPAD Level 2 No. 42204)				
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		-		<input type="checkbox"/>	<input type="checkbox"/>
<p><b>Limitations:</b> The protection measures that will be implemented based on information presented in this Bushfire Management Plan are minimum requirements and they do not guarantee that buildings or infrastructure will not be damaged in a bushfire, persons injured, or fatalities occur either on the subject site or off the site while evacuating.</p> <p>This is substantially due to the unpredictable nature and behaviour of fire and fire weather conditions. Additionally, the correct implementation of the required protection measures (including bushfire resistant construction) and any other required or recommended measures, will depend upon, among other things, the ongoing actions of the landowners and/or operators over which Bushfire Prone Planning has no control.</p> <p>All surveys, forecasts, projections and recommendations made in this report associated with the proposed development are made in good faith based on information available to Bushfire Prone Planning at the time. All maps included herein are indicative in nature and are not to be used for accurate calculations.</p> <p>Notwithstanding anything contained therein, Bushfire Prone Planning will not, except as the law may require, be liable for any loss or other consequences whether or not due to the negligence of their consultants, their servants or agents, arising out of the services provided by their consultants.</p> <p><b>Copyright © 2022 BPP Group Pty Ltd:</b> All intellectual property rights, including copyright, in format and proprietary content contained in documents created by Bushfire Prone Planning, remain the property of BPP Group Pty Ltd. Any use made of such format or content without the prior written approval of Bushfire Prone Planning, will constitute an infringement on the rights of the Company which reserves all legal rights and remedies in respect of any such infringement.</p>					

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## SUMMARY STATEMENTS

### THIS DOCUMENT – STATEMENT OF PURPOSE

#### The Bushfire Management Plan (BMP)

The BMP sets out the required package of bushfire protection measures to lessen the risks associated with a bushfire event. It establishes the responsibilities to implement and maintain these measures.

The BMP also identifies the potential for any negative impact on any environmental, biodiversity and conservation values that may result from the application of bushfire protection measures or that may limit their implementation.

#### Risks Associated with Bushfire Events

The relevant risks are the potential for loss of life, injury, or destroyed or damaged assets which results in personal loss and economic loss. For a given site, the level of that risk to persons and assets (the exposed elements) is a function of the potential threat levels generated by the bushfire hazard, and the level of exposure and vulnerability of the at risk elements to the threats.

#### Bushfire Protection Measures

The required package of protection measures is established by *State Planning Policy 3.7 Planning in Bushfire Prone Areas (SPP 3.7)*, its associated *Guidelines* and any other relevant guidelines or position statements published by the Department of Planning, Lands and Heritage. These measures are limited to those considered by the WA planning authorities as necessary to be addressed for the purpose of land use planning. They do not encompass all available bushfire protection measures as many are not directly relevant to the planning approval stage. For example:

- Protection measures to reduce the vulnerability of buildings to bushfire threats is primarily dealt with at the building application stage. They are implemented through the process of applying the Building Code of Australia (Volumes 1 and 2 of the national Construction Code) in accordance with WA building legislation and the application of construction requirements based on a building's level of exposure - determined as a Bushfire Attack Level (BAL) rating); or
- Protection measures to reduce the threat levels of consequential fire (ignited by bushfire and involving combustible materials surrounding and within buildings) and measures to reduce the exposure and vulnerability of elements at risk exposed to consequential fire, are not specifically considered.

The package of required bushfire protection measures established by the Guidelines includes:

- The requirements of the bushfire protection criteria which consist of:
  - Element 1: Location (addresses threat levels).
  - Element 2: Siting and Design of Development (addresses exposure levels of buildings).
  - Element 3: Vehicular Access (addresses exposure and vulnerability levels of persons).
  - Element 4: Water (addresses vulnerability levels of buildings).
  - Element 5: Vulnerable Tourism Land Uses (addresses exposure and vulnerability as per Elements 1-4 but in use specific ways and with additional considerations of persons exposure and vulnerability).
- The requirement to develop Bushfire Emergency Plans / Information for 'vulnerable' land uses for persons to prepare, respond and recover from a bushfire event (this addresses vulnerability levels).
- The requirement to assess bushfire risk and incorporate relevant protection measures into the site emergency plans for 'high risk' land uses (this addresses threat, exposure and vulnerability levels).

#### Compliance of the Proposed Development or Use with SPP 3.7 Requirements

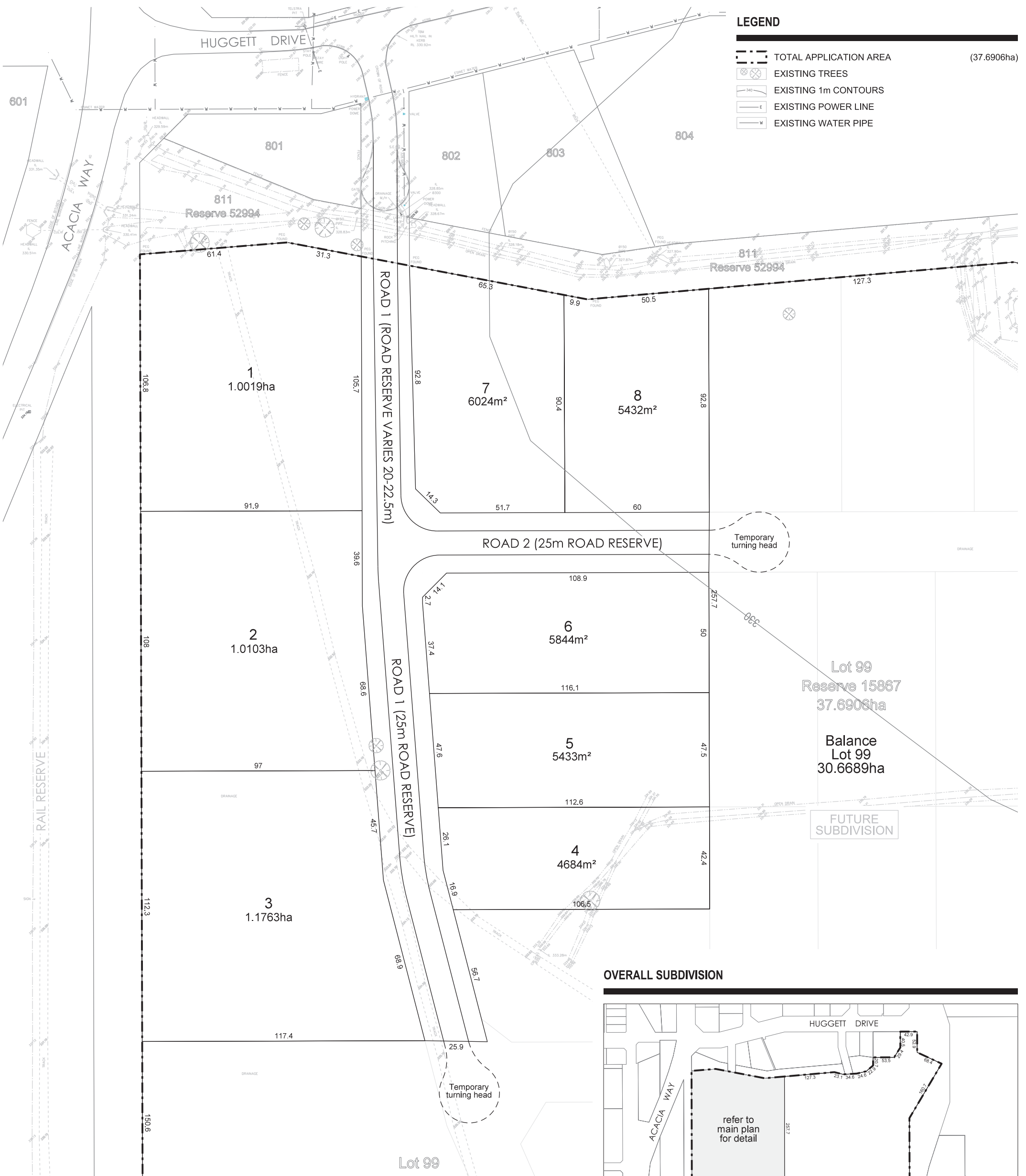
The BMP assesses the capacity of the proposed development or use to implement and maintain the required 'acceptable' solutions and any additionally recommended bushfire protection measures - or its capacity to satisfy the policy intent through the justified application of additional bushfire protection measures as supportable 'alternative' solutions.

THE PROPOSED DEVELOPMENT/USE – BUSHFIRE PLANNING COMPLIANCE SUMMARY		
Environmental Considerations		Assessment Outcome
Will identified environmental, biodiversity and conservation values limit the full application of the required bushfire protection measures?		Possible (check)
Will identified environmental, biodiversity and conservation values need to be managed in the implementation and maintenance of the bushfire protection measures - but not limit their application?		Possible (check)
Required Bushfire Protection Measures The Acceptable Solutions of the Bushfire Protection Criteria (Guidelines)		Assessment Outcome
Element	The Acceptable Solutions	
1: Location	A1.1 Development location	Fully Compliant
2: Siting and Design of Development	A2.1 Asset Protection Zone (APZ)	Fully Compliant
3: Vehicular Access	A3.1 Public roads	Fully Compliant
	A3.2a Multiple access routes	Fully Compliant
	A3.2b Emergency access way	Fully Compliant
	A3.3 Through-roads	N/A
	A3.4a Perimeter roads	N/A
	A3.4b Fire service access route	N/A
	A3.5 Battle-axe legs	N/A
4: Water	A3.6 Private driveways	N/A
	A4.1 Identification of future water supply	Fully Compliant
	A4.2 Provision of water for firefighting purposes	Fully Compliant
Other 'Bushfire Planning' Documents to Be Produced		Required
This necessity for additional documents is determined by the proposed development/use type and the requirements established by SPP 3.7 and the associated Guidelines (as amended). As necessary, relevant outcomes are also captured as responsibilities in this BMP.		
Bushfire Emergency Plan – as preparation, response, and recovery operational information document. Includes a supporting information document to justify the plan's content.		N/A
Bushfire Emergency Information – as response information poster.		N/A
Bushfire Risk Assessment and Management Report		N/A

## 1 PROPOSAL DETAILS AND THE BUSHFIRE MANAGEMENT PLAN

### 1.1 The Proposed Development/Use Details, Plans and Maps

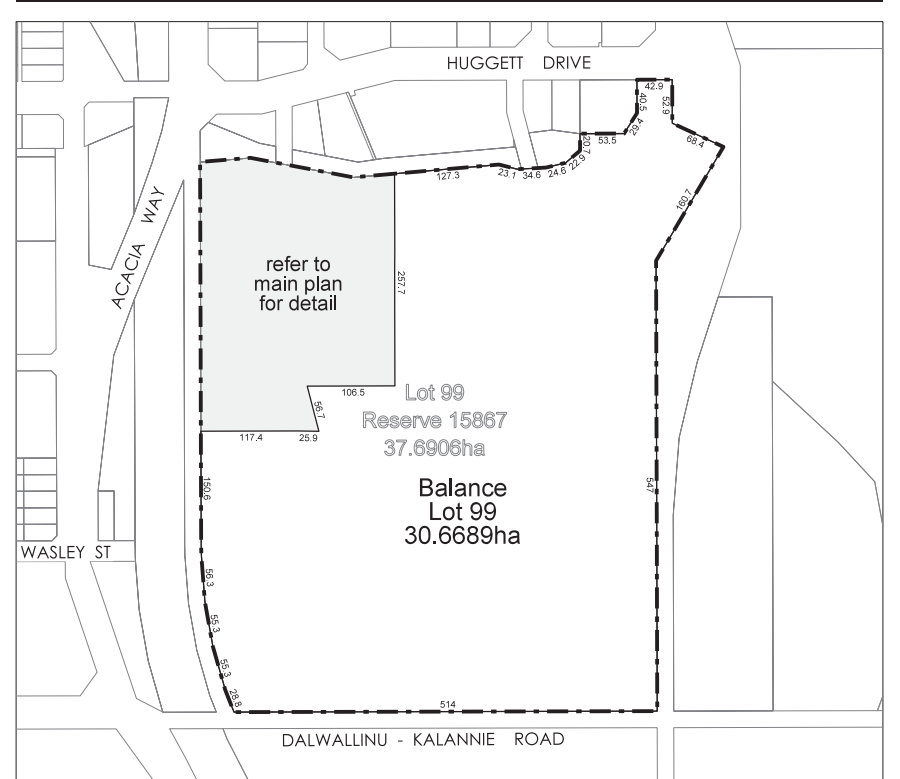
<b>The Proposal's Planning Stage</b> For which certain bushfire planning documents are required to accompany the planning application.		Subdivision Application	
<b>Total Area of Subject Lot/Site</b>		7.0217 hectares – Stage 1	
<b>Number of Additional Lots Created</b>		Existing lot(s) = 1 / Proposed lot(s) = 9	
<b>Primary Proposed Construction</b>	<b>Type(s)</b>	New Building(s)	Infrastructure
	<b>NCC Classification</b>	Class 5 - 9	
<b>Specific 'Bushfire Planning' Land Use Type</b> When applicable, this classification establishes a requirement to conduct assessments and develop documents that are additional to this Bushfire Management Plan.		N/A	
<b>Description of the Proposed Development/Use</b>			
This Bushfire Management Plan has been prepared to accompany the Subdivision Application of 1 large existing allotment into 8 smaller commercial lots and 1 balance lot.			
<b>Description of Planned Staged Development and the Management of Potential Bushfire Planning Issues</b>			
As the construction of the development will be staged, the reduction of bushfire hazard ignition sources within the subject site and separation from external bushfire prone vegetation will be implemented via: <ul style="list-style-type: none"> <li>- The development of asset protection zones and management of fuel loads within the site as detailed within the bushfire management plan for new buildings and structures where applicable.</li> </ul>			



**LOT SUMMARY**

LOT YIELD		LOT AREA		
Size	No. Lots	% Total Lots	Average Size	% of Total Area
3999m <sup>2</sup> - 4999m <sup>2</sup>	1	12.50%	4684m <sup>2</sup>	7.90%
5000m <sup>2</sup> - 9999m <sup>2</sup>	4	50.00%	5683m <sup>2</sup>	38.33%
10000m <sup>2</sup> - 19999m <sup>2</sup>	3	37.50%	10628m <sup>2</sup>	53.77%
Total Number of Lots	8			
Minimum Lot Size 4684m <sup>2</sup>			Average Lot Size 7412m <sup>2</sup>	
Maximum Lot Size 11762m <sup>2</sup>			Total Lot Area 59301m <sup>2</sup>	
Balance Lot	1			
Total Number of Lots	9			

**OVERALL SUBDIVISION**



**Plan of Subdivision - Freehold (Industrial)**  
 LOT 99 DALWALLINU - KALANNIE ROAD, DALWALLINU

**DRAFT**

plan: 22/084/001  
 scale: 1:1,500@A3 | 1:750@A1  
 0 10 20 30m

date: 8/09/2022  
 grid: MGA50  
 aerial: n/a

designed: ME  
 checked: ME  
 drawn: MH

Taylor Burrell Barnett Town Planning & Design  
 Level 7, 160 St Georges Terrace, Perth WA 6000  
 e: admin@tbbplanning.com.au  
 p: (08) 9226 4276

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









Figure 1.2

### Proposed Subdivision Map

Lot 99 on Plan / Diagram: P069929  
Dalwallinu-Kalannie Road  
Dalwallinu  
Shire of Dalwallinu

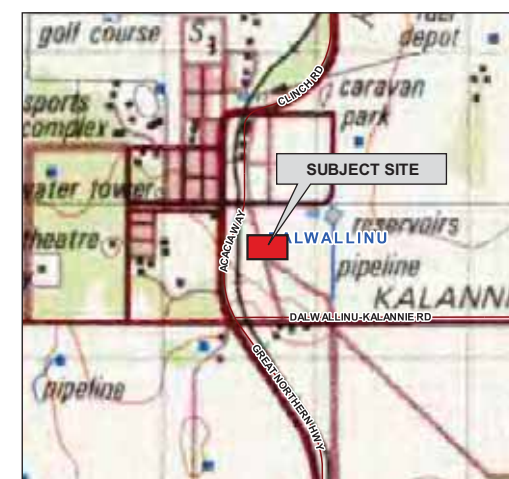
----- LEGEND -----

-  Cadastre
-  Hydrants
-  Potential Hydrant
-  Balance Lot 99
-  Subject Site - (Stage 1)
- Emergency Access Way**
-  EAW - Temporary
-  Proposed Subdivision
-  Proposed Carriageway



Metres

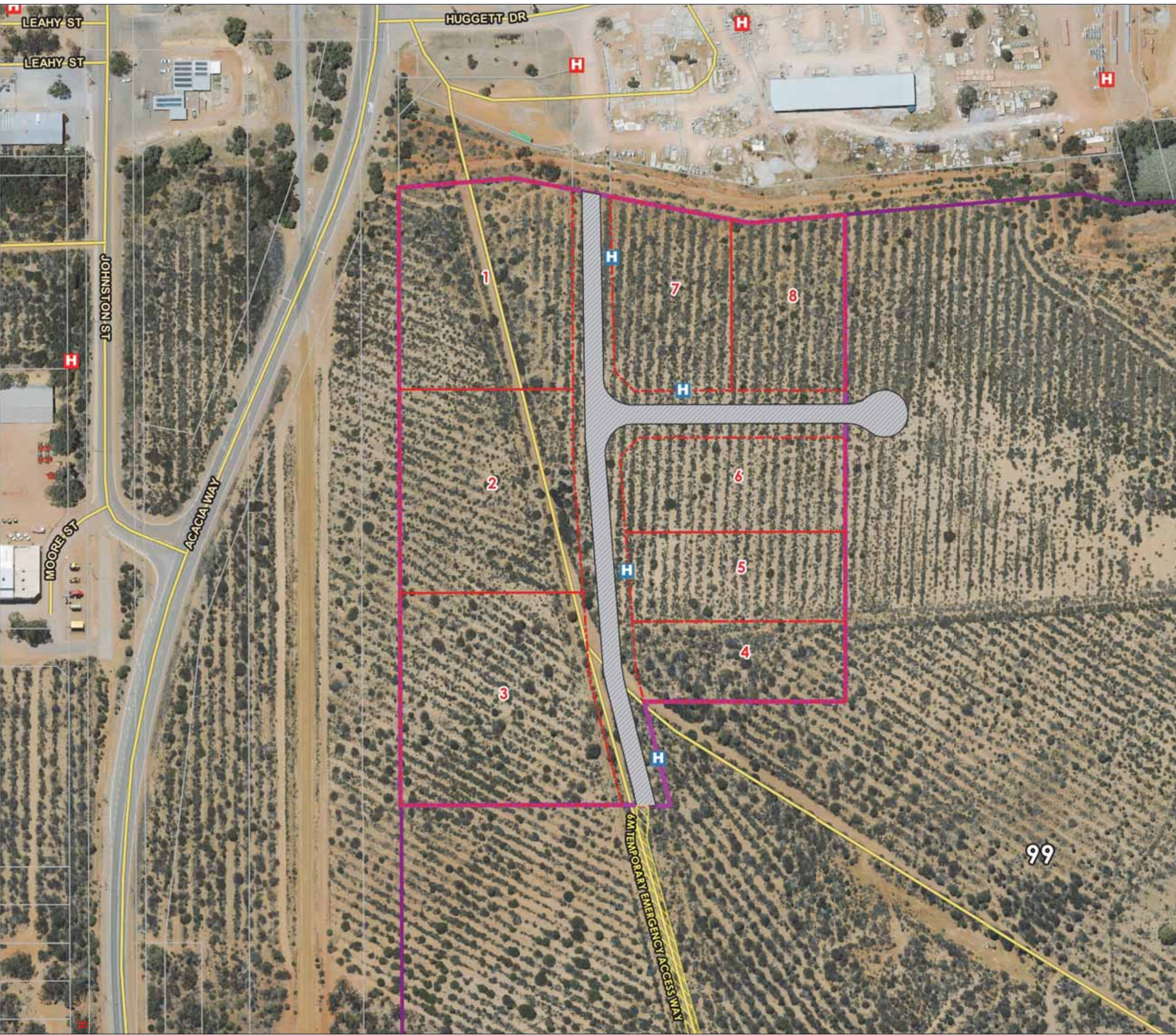
----- LOCALITY -----



AERIAL IMAGERY: Landgate/SLIP



Coordinate System: GDA 1994 MGA Zone 50  
Projection: Universal Transverse Mercator Units: Metre  
Map by: Sarina Gorman 07-10-2022  
SCALE (A3): 1 : 1900



Disclaimer and Limitation: This map has been prepared for bushfire management planning purposes only. All depicted areas, contours and any dimensions shown are subject to survey. Bushfire Prone Planning does not guarantee that this map is without flaw of any kind and disclaims all liability for any errors, loss or other consequence which may arise from relying on any information depicted.











Figure 1.2.1

### Proposed Subdivision Map - (Spatial)

Lot 99 on Plan / Diagram: P069929  
 Dalwallinu-Kalannie Road  
 Dalwallinu  
 Shire of Dalwallinu

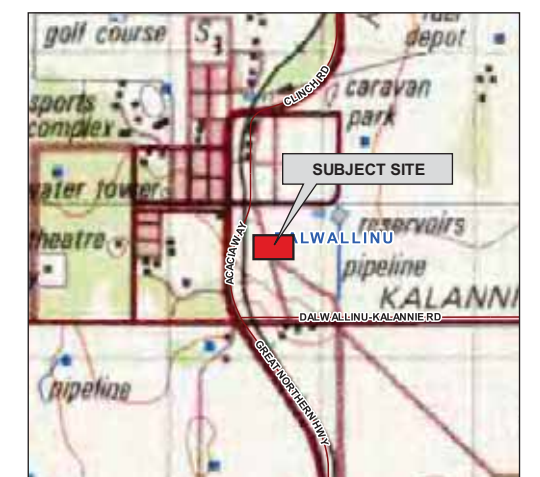
----- LEGEND -----

-  Cadastre
-  Hydrants
-  Potential Hydrant
-  Balance Lot 99
-  Subject Site - (Stage 1)
- Emergency Access Way**
-  EAW - Temporary
-  Proposed Subdivision
-  Proposed Carriageway



Metres

----- LOCALITY -----



AERIAL IMAGERY: Landgate/SLIP



Coordinate System: GDA 1994 MGA Zone 50  
 Projection: Universal Transverse Mercator Units: Metre  
 Map by: Sarina Gorman 11-10-2022  
 SCALE (A3): 1 : 2600

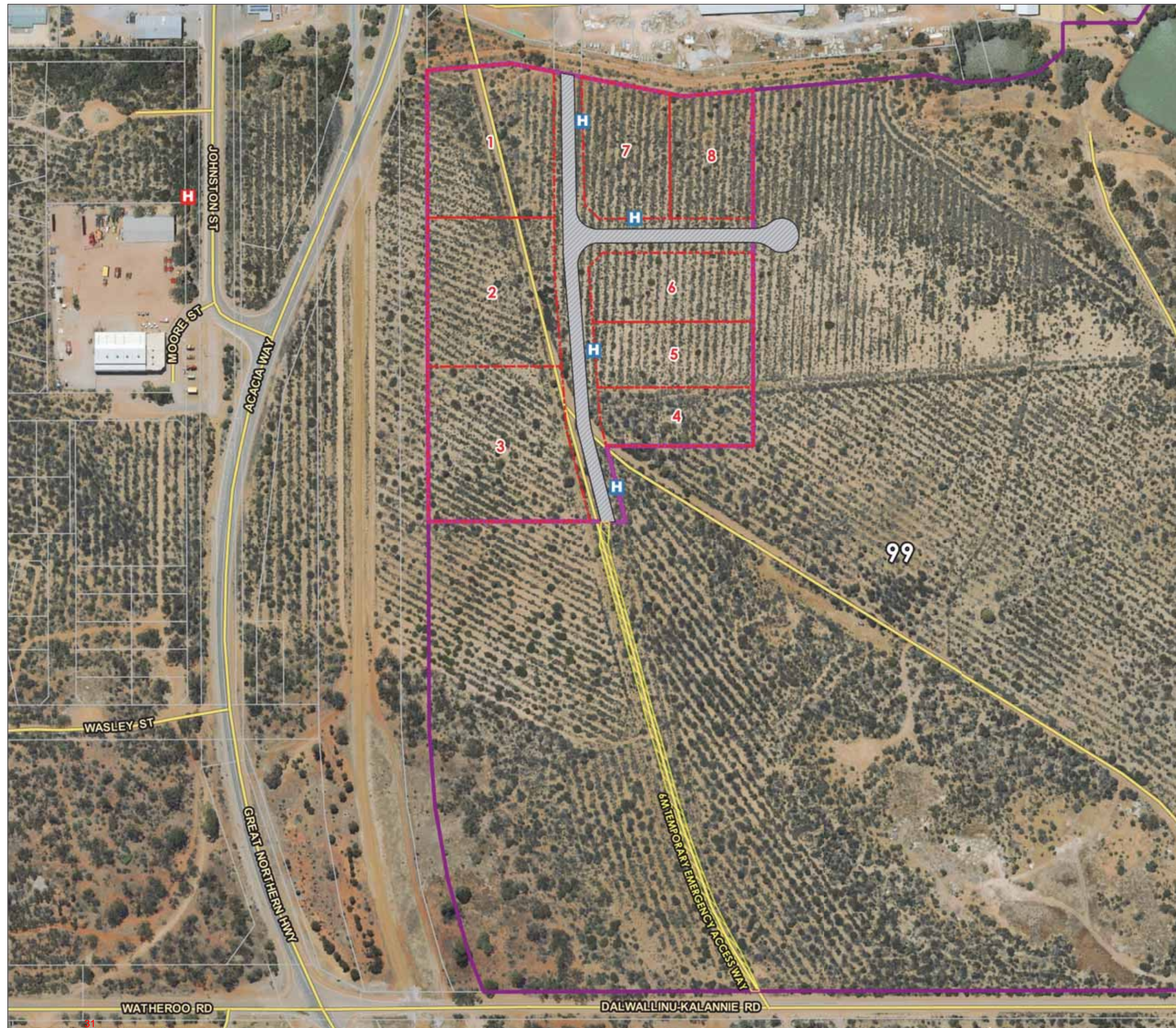


Figure 1.3

### Location Plan

Lot 99 on Plan / Diagram: P069929  
 Dalwallinu-Kalannie Road  
 Dalwallinu  
 Shire of Dalwallinu

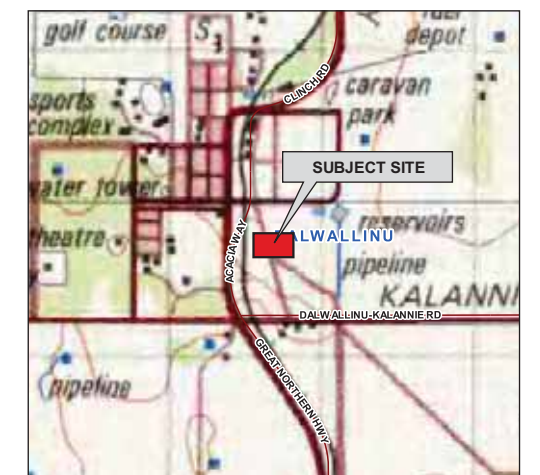
----- LEGEND -----

- Balance Lot 99
- Subject Site (Stage 1)
- Local Government Authority
- Localities/Suburb
- Bush Fire Brigade
- Volunteer Fire & Rescue Service
- Reserves
- Legislated Lands and Waters**
- Nature Reserve



Metres

----- LOCALITY -----



AERIAL IMAGERY: Landgate/SLIP



Coordinate System: GDA 1994 MGA Zone 50  
 Projection: Universal Transverse Mercator Units: Metre  
 Map by: Sarina Gorman 29-09-2022  
 SCALE (A3): 1 : 10000

#### WHERE SPP 3.7 AND THE GUIDELINES ARE TO APPLY – DESIGNATED BUSHFIRE PRONE AREAS

All higher order strategic planning documents, strategic planning proposals, subdivisions and development applications located in designated bushfire prone areas need to address SPP 3.7 and its supporting Guidelines. This also applies where an area is not yet designated as bushfire prone but is proposed to be developed in a way that introduces a bushfire hazard.

For development applications where only part of a lot is designated as bushfire prone and the proposed development footprint is wholly outside of the designated area, the development application will not need to address SPP 3.7 or the Guidelines. (Guidelines DPLH 2021 v1.4, s1.2).

For subdivision applications, if all the proposed lots have a BAL-LOW indicated, a BMP is not required. (Guidelines DPLH 2021 v1.4, s5.3.1).

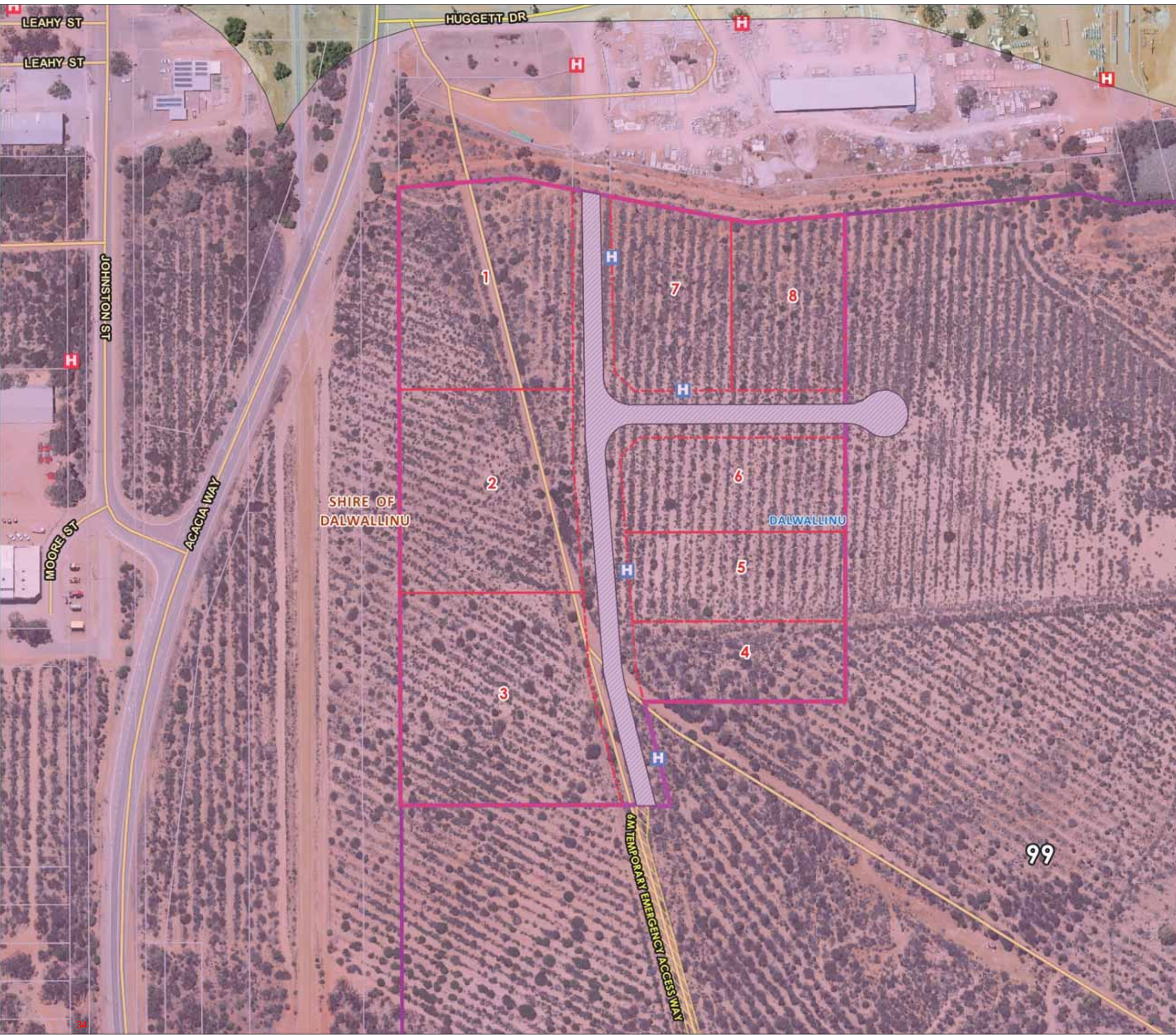


Figure 1.4  
**Bushfire Prone Areas**

GlySSHyw q w7pD gts c ly j 6SS: S  
 ps d s d i v2s q wWey/Hs d  
 ps d s d i  
 KDeYHRps d s d i

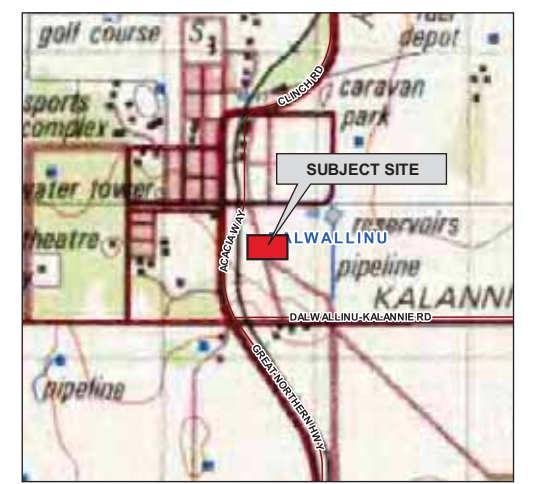
----- LEGEND -----

- Pi uKRey thweyotes u
- Cs ds ulte
- f Bdts wU
- r HlewD q Bdts w
- Ps q w eyGlySS
- i T-e( ly DeYwD ls geyl U
- Emergency Access Way**
- ZoY wAc WHts tB
- r thWHuedy i T dDw
- r thWHuedyCs ttD gel s B



Mel teu

----- LOCALITY -----



oZ/ rD G/Mo9 Z/ hlyG wds l e7 G



CHHIdDs ley Bulec l9 poylSS4wM9 oYthwey6j  
 r the( lBwly wDets qAs wEetueyMeI( lS Hyw) wDlyMeIte  
 Ms Wt Bly s lD6 s y9 Htc s wyj rvlj v j : :  
 CoGyD3Uyly yA S j j

## 1.2 The Bushfire Management Plan (BMP)

### 1.2.1 Commissioning and Purpose

Landowner / proponent:	DevelopmentWA
Bushfire Prone Planning commissioned to produce the BMP by:	DevelopmentWA
Purpose of the BMP:	To apply the requirements established by State Planning Policy 3.7: Planning in Bushfire Prone Areas (SPP 3.7) and accompany the subdivision application
BMP to be submitted to:	WA Planning Commission (WAPC)

### 1.2.2 Existing Documents with Implications for Development of this BMP

This section identifies any known assessments, reports or plans that have been conducted and prepared previously, or are being prepared concurrently, and are relevant to the subject site and the proposal/application. They potentially have implications for the assessment of bushfire threats and the implementation of the protection measures that are dealt with in the Bushfire Management Plan.

Table 1.4: Existing documents that may impact threat assessments and protection measure development.

EXISTING RELEVANT DOCUMENTS			
Existing Document	Relevant to the Proposal and the BMP	Copy Provided by Proponent / Developer	Title
Structure Plan	No	No	
Bushfire Management Plan	Yes	Yes	15463d Landcorp Dalwallinu Industrial (BMP) v1.4 Final – (Prepared by Bushfire Prone Planning – Dated February 2016
Implications for the BMP: Previous Subdivision Application has expired – Revised Bushfire Management Plan required to account for changes in Standards, State Planning Policies and associated Guidelines.			
Bushfire Emergency Plan or Information	No	No	
Bushfire Risk – Assessment and Management Report	No	No	
Environmental Asset or Vegetation Survey	No	No	
Landscaping (Revegetation) Plan	No	No	
DPLH BMP Guidance 'Regions & Uses'	No	No	Bushfire Management Plan Guidance for the Dampier Peninsula (WA Department of Planning, Lands and Heritage, 2021 Rev B).

## 2 ENVIRONMENTAL CONSERVATION (DESKTOP ASSESSMENT)

**Important:** This 'desktop' assessment must not be considered as a replacement for a full Environmental Impact Assessment. It is a summary of potential environmental values at the subject site, inferred from information contained in listed datasets and/or reports, which are only current to the date of last modification.

These data sources must be considered indicative where the subject site has not previously received a site-specific environmental assessment by an appropriate professional.

Many bushfire prone areas also have high biodiversity values. Consideration of environmental priorities within the boundaries of the land being developed can avoid excessive or unnecessary modification or clearing of vegetation. Approval processes (and exemptions) apply at both Commonwealth and State levels.

Any 'modification' or 'clearing' of vegetation to reduce bushfire risk is considered 'clearing' under the **Environmental Protection Act 1986** (EP Act) and requires a clearing permit under the **Environmental Protection (Clearing of Native Vegetation) Regulations 2004** (Clearing Regulations) – unless for an exempt purpose.

Clearing native vegetation is an offence, unless done under a clearing permit or the clearing is for an exempt purpose. Exemptions are contained in the EP Act or are prescribed in the Clearing Regulations (note: these do not apply in environmentally sensitive areas).

The **Department of Water and Environmental Regulation** (DWER) is responsible for issuing 'clearing' permits and the framework for the regulation of clearing. Approvals under other legislation, from other agencies, may also be required, dependent on the type of flora or fauna present.

**Local Planning Policy or Local Biodiversity Strategy:** Natural areas that are not protected by the above Act and Regulation (or any other National or State Acts) may be protected by a local planning policy or local biodiversity strategy. Permission from the local government will be required for any modification or removal of native vegetation in these Local Natural Areas (LNA's). Refer to the relevant local government for detail.

For further Information refer to Guidelines v1.4, the Bushfire and Vegetation Factsheet - WAPC, Dec 2021 and <https://www.der.wa.gov.au/our-work/clearing-permits>

### 2.1 Existing Vegetation on Private Land

#### 2.1.1 Declared Environmentally Sensitive Areas (ESA)

Table 2.1: Identification of relevant ESA.

IDENTIFICATION OF ESA							
ESA Class	Relevant to Proposal	Influence on Bushfire Threat Levels and / or Application of Bushfire Protection Measures	Relevant Dataset	Information Source(s) Applied to Identification of Relevant Vegetation			Further Action Required
				Dataset	Landowner or Developer	Environmental Asset or Vegetation Survey	
Wetlands and their 50m Buffer (Ramsar, conservation category and nationally important)	No	N/A	DBCA-010 and 011, 019, 040, 043, 044	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	None
Bush Forever	No	N/A	DPLH-022, SPP 2.8	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	N/A
Threatened and Priority Flora + 50m Continuous Buffer	No	N/A	DBCA-036	Restricted Scale of	<input type="checkbox"/>	<input type="checkbox"/>	None

Threatened Ecological Community	No	N/A	DBCA-038	Data Available (security)	<input type="checkbox"/>	<input type="checkbox"/>	None
Heritage Areas National / World	No	N/A	Relevant register or mapping	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	None

## 2.2 Existing Vegetation on Public Land

Table 2.2: Identification of vegetation on public land with environmental, biodiversity and conservation values.

IDENTIFICATION OF PROTECTED VEGETATION ON PUBLIC LAND							
Land with Environmental, Biodiversity, Conservation and Social Values	Relevant to Proposal	Influence on Bushfire Threat Levels and / or Application of Bushfire Protection Measures	Relevant Dataset	Information Source(s) Applied to Identification of Relevant Vegetation			Further Action Required
				Dataset	Landowner or Developer	Environmental Asset or Vegetation Survey	
Legislated Lands (tenure includes national park/reserve, conservation park, crown reserve and state forest)	No	N/A	DBCA-011	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	None
Conservation Covenants	Unknown	Possible	DPIRD-023	Only Available to Govt.	<input type="checkbox"/>	<input type="checkbox"/>	Data not available - confirm with relevant agency
National World Heritage Areas	No	N/A	-	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	None

## 2.3 Planned Landscaping and/or Re-vegetation

Table 2.3: Identification of land subject to planned vegetation modification.

AREAS OF LAND PLANNED FOR RE-VEGETATION OR LANDSCAPING			
Land with Environmental, Biodiversity, Conservation and Social Values	Relevant to Proposal	Planned Vegetation Modification	Description
Riparian Zones	No	N/A	
Foreshore Areas	No	N/A	
Wetland Buffers	No	N/A	
Legislated Lands	No	N/A	
Public Open Space	No	N/A	
Road Verges	No	N/A	

## 2.4 Identified Requirement for Onsite Vegetation Modification or Removal

IDENTIFICATION OF POTENTIAL NATIVE VEGETATION MODIFICATION OR REMOVAL	
Has a requirement to modify or remove native vegetation to establish the required bushfire protection measures on the subject site been identified?	Yes
Comments: Note – Any removal or modification is subject to all applicable Environmental Survey Works and approval from the Local Government Authority. The construction of the proposed development and the ongoing management of onsite vegetation will reduce the threat of bushfire. Refer to Figures 3.1b and 3.2a contained within this Bushfire Management Plan.	
Is evidence provided (from relevant agencies, the environmental or planning consultant and/or the local government), that the required modification or removal of the vegetation can be achieved?	No
Comments: Not Applicable	



## 2.5 Implications for the Proposed Development and the BMP

Table 2.5: Consideration of the implications that identified protected areas of vegetation (i.e., those with environmental and subject to conservation) have for the development proposal and the BMP.

THE IMPLICATIONS FOR THE PROPOSED DEVELOPMENT (AND BMP) FROM THE IDENTIFIED 'PROTECTED' VEGETATION	
The Determination of Bushfire Threat Levels and the Exposure of at Risk Elements	Relevant to the BMP
The ability to reduce the potential bushfire impact on the development through modification or removal of vegetation is limited due to the existence of 'protected' areas of vegetation.	N/A
The planned development will result in additional areas of bushfire prone vegetation (due to re-vegetation and/or landscaping) that will support fire and that may impact the development. This vegetation has been accounted for within the BMP.	No
The Application of Design and/or Construction Responses to Limit Vegetation Modification or Removal	Relevant to the BMP
Modify the development location to reduce exposure by increasing separation distance.	N/A
Redesign development, structure plan or subdivision.	Not required
Reduction of lot yield where this can increase available separation distances.	Not required
Cluster development to limit modification or removal of vegetation.	Not required
Construct building(s) to the requirements corresponding to higher BAL ratings to reduce required separation distances.	Not required

Figure 1.2

## Environmental Considerations

Lot 99 on Plan / Diagram: P069929  
 Dalwallinu-Kalannie Road  
 Dalwallinu  
 Shire of Dalwallinu

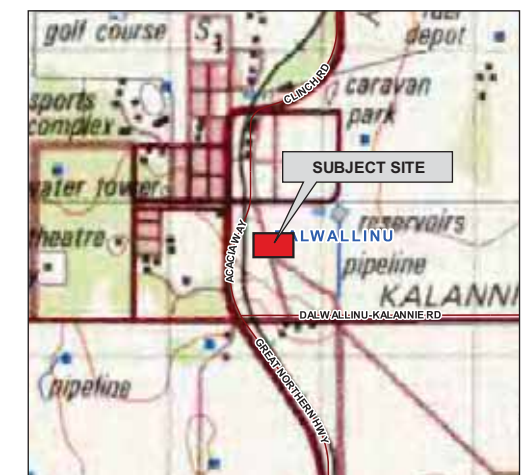
----- LEGEND -----

- Balance Lot 99
- Subject Site (Stage 1)
- Reserves
- Legislated Lands and Waters**
- Nature Reserve
- Environmentally Sensitive Areas**
- Declared Rare Fauna



Metres

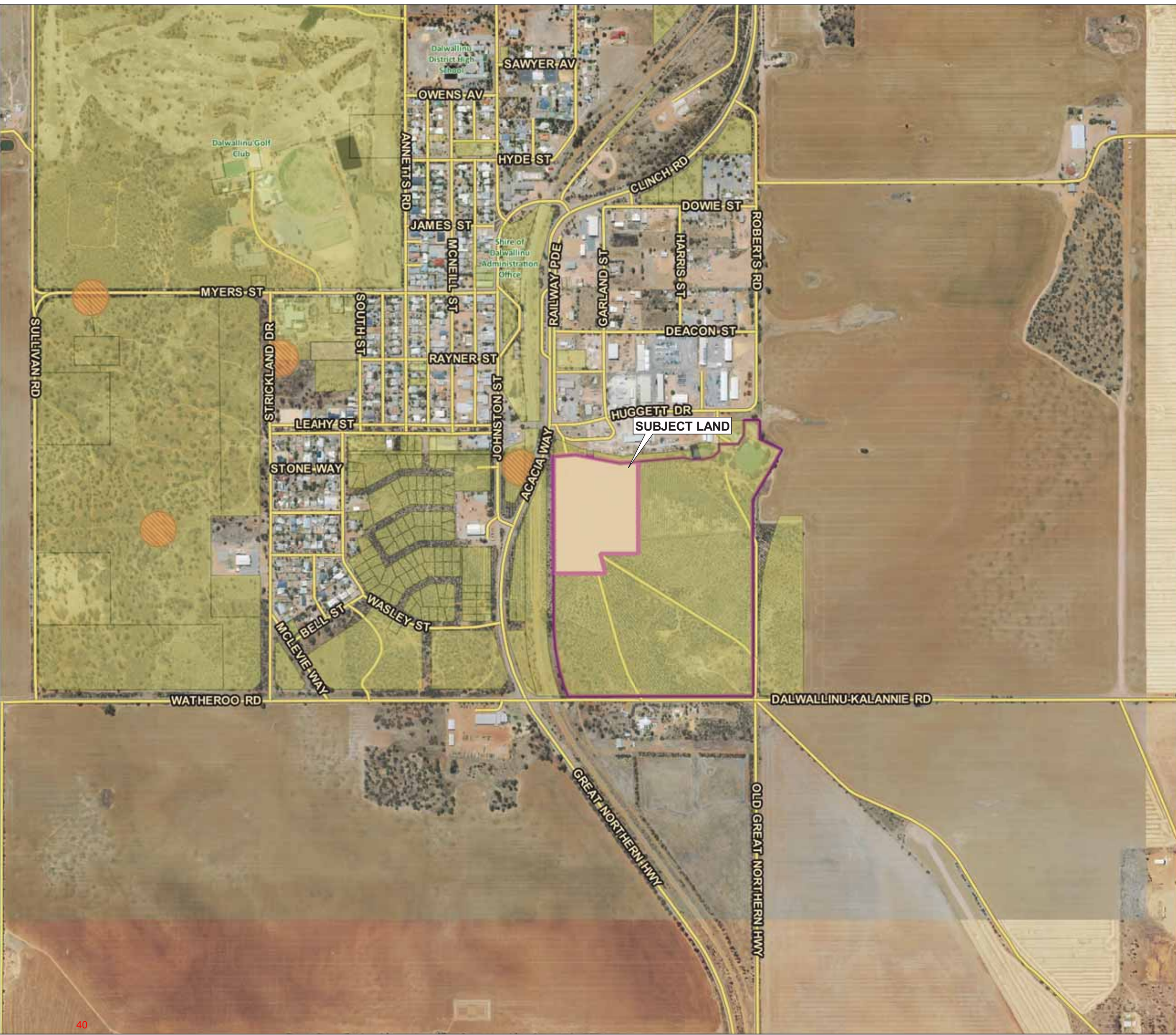
----- LOCALITY -----



AERIAL IMAGERY: Landgate/SLIP



Coordinate System: GDA 1994 MGA Zone 50  
 Projection: Universal Transverse Mercator Units: Metre  
 Map by: Sarina Gorman 29-09-2022  
 SCALE (A3): 1 : 10000



### 3 BUSHFIRE ATTACK LEVEL (BAL) ASSESSMENT

#### BUSHFIRE ATTACK LEVELS (BAL) - UNDERSTANDING THE RESULTS

The transfer (flux/flow) of radiant heat from the bushfire to a receiving object is measured in kW/m<sup>2</sup>. The AS 3959:2018 BAL determination methodology establishes the ranges of radiant heat flux that correspond to each bushfire attack level. These are identified as BAL-LOW, BAL-12.5, BAL-19, BAL-29, BAL-40 and BAL-FZ.

The bushfire performance requirements for certain classes of buildings are established by the Building Code of Australia (Vol. 1 & 2 of the NCC). The BAL will establish the bushfire resistant construction requirements that are to apply in accordance with AS 3959:2018 - *Construction of buildings in bushfire prone areas* and the NASH Standard – *Steel framed construction in bushfire areas (NS 300 2021)*, whose solutions are deemed to satisfy the NCC bushfire performance requirements.

#### DETERMINED BAL RATINGS

A BAL Certificate can be issued for a determined BAL. A BAL can only be classed as 'determined' for an existing or future building/structure when:

1. It's final design and position on the lot are known and the stated separation distance from classified bushfire prone vegetation exists and can justifiably be expected to remain in perpetuity; or
2. It will always remain subject to the same BAL regardless of its design or position on the lot after accounting for any regulatory or enforceable building setbacks from lot boundaries as relevant and necessary (e.g., R-codes, restrictive covenants, defined building envelopes) or the retention of any existing classified vegetation either onsite or offsite.

If the BMP derives determined BAL(s), the BAL Certificate(s) required for submission with building applications can be provided, using the BMP as the assessment evidence.

#### INDICATIVE BAL RATINGS

A BAL Certificate cannot be issued for an indicative BAL. A BAL will be classed as 'indicative' for an existing or future building/structure when the required conditions to derive a determined BAL are not met.

This class of BAL rating indicates what BAL(s) could be achieved and the conditions that need to be met are stated.

Converting the indicative BAL into a determined BAL is conditional upon the currently unconfirmed variable(s) being confirmed by a subsequent assessment and evidential documentation. These variables will include the future building(s) location(s) being established (or changed) and/or classified vegetation being modified or removed to establish the necessary vegetation separation distance. This may also be dependent on receiving approval from the relevant authority for that modification/removal.

#### BAL RATING APPLICATION – PLANNING APPROVAL VERSUS BUILDING APPROVAL

1. **Planning Approval:** SPP.3.7 establishes that where BAL- LOW to BAL-29 will apply to relevant future construction (or existing structures for proposed uses), the proposed development may be considered for approval (dependent on the other requirements of the relevant policy measures being met). That is, BAL40 or BAL-FZ are not acceptable on planning grounds (except for certain limited exceptions).

Because planning is looking forward at what can be achieved, as well as looking at what may currently exist, both determined and indicative BAL ratings are acceptable assessment outcomes on which planning decisions can be made (including conditional approvals).

2. **Building Approval:** The Building Code of Australia (Vol. 1 & 2 of the NCC) establishes that relevant buildings in bushfire prone areas must be constructed to the bushfire resistant requirements corresponding to the BAL rating that is to apply to that building. Consequently, a determined BAL rating and the BAL Certificate is required for a building permit to be issued - an indicative BAL rating is not acceptable.

### 3.1 BAL Assessment Summary - Contour Map Format

#### INTERPRETATION OF THE BAL CONTOUR MAP

The BAL contour map is a diagrammatic representation of the results of the bushfire attack level assessment.

The map presents different coloured contours extending out from the areas of classified vegetation. Each contour represents a set range of radiant heat flux that potentially will transfer to an exposed element (building, person or other defined element), when it is located within that contour.

Each of the set ranges of radiant heat flux corresponds to a different BAL rating as defined by the AS 3959:2018 BAL determination methodology.

The width of each shaded BAL contour will vary dependant on both the BAL rating and the relevant parameters (calculation inputs) for the subject site. Their width represents the minimum and maximum vegetation separation distances that correspond to each BAL rating (refer to the relevant table below for these distances).

The areas of classified vegetation to be considered in developing the BAL contours, are those that will remain at the intended end state of the subject development once earthworks, clearing and/or landscaping and re-vegetation have been completed. Variations to this statement that may apply include:

- Both pre and post development BAL contour maps are produced; and/or
- Each stage of a development is assessed independently.

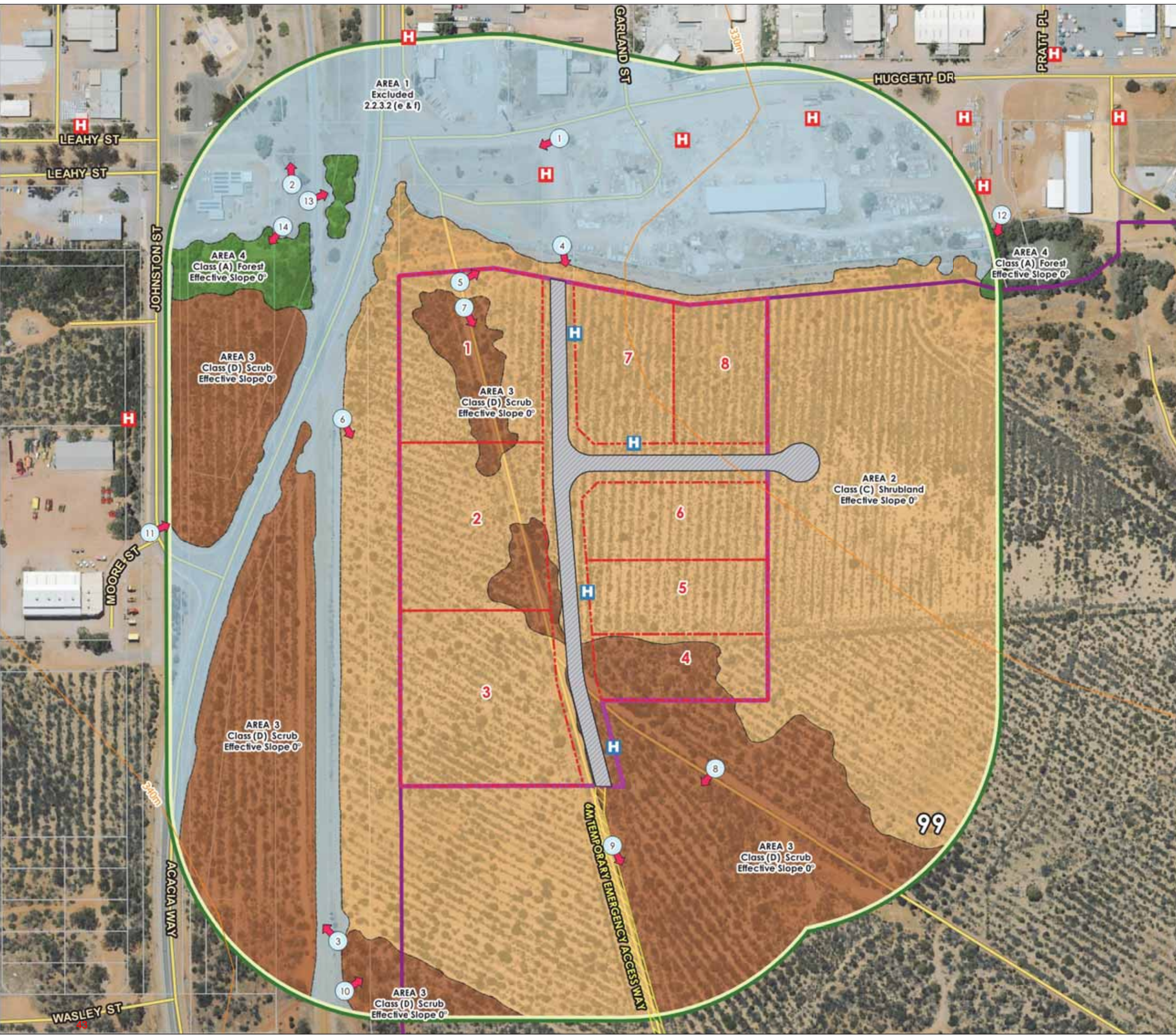
#### 3.1.1 The BAL Determination Method(s) Applied and the Location of Data and Results

Procedure Method (AS 3959:2018)	Applied to the BAL Assessment	Location of the Site Assessment Data			Location of the Results
		Classified Vegetation and Topography Map(s)	Calculation Input Variables		Assessed Bushfire Attack Levels and/or Radiant Heat Levels
			Summary Data	Detailed Data with Explanatory and Supporting Information	
Method 1 (Simplified)	Yes	Figures 3.1a and 3.1b	Table 3.1	Appendix A1	Table 3.2 BAL Contour Map

Figure 3.1a

# Classified Vegetation & Topography Map - (Existing)

Lot 99 on Plan / Diagram: P069929  
 Dalwallinu-Kalannie Road  
 Dalwallinu  
 Shire of Dalwallinu



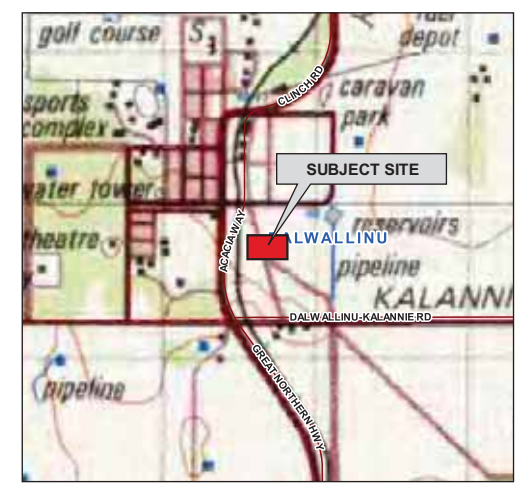
----- LEGEND -----

- Photos
- Elevation (m)
- Hydrants
- Potential Hydrant
- Balance Lot 99
- Subject Site - (Stage 1)
- Emergency Access Way**
  - EAW - Temporary
  - Proposed Subdivision
  - Proposed Carriageway
- Assessment Area**
  - 150m Buffer
- Classified Vegetation**
  - Class A - Forest
  - Class C - Shrubland
  - Class D - Scrub
  - Exclusion 2.2.3.2



Metres

----- LOCALITY -----



AERIAL IMAGERY: Landgate/SLIP



Coordinate System: GDA 1994 MGA Zone 50  
 Projection: Universal Transverse Mercator Units: Metre  
 Map by: Sarina Gorman 07-10-2022  
 SCALE (A3): 1 : 2300

Disclaimer and Limitation: This map has been prepared for bushfire management planning purposes only. All depicted areas, contours and any dimensions shown are subject to survey. Bushfire Prone Planning does not guarantee that this map is without flaw of any kind and disclaims all liability for any errors, loss or other consequence which may arise from relying on any information depicted.



CONSTRUCTION OF THE BAL CONTOUR MAP(S) – RELEVANT CLASSIFIED VEGETATION	
Identification of Classified Vegetation that is Relevant to the Production of the BAL Contour Map(s)	Relevant Map
All identified areas of classified vegetation that exist at the time of the site assessment – both within the subject site (onsite) and external to the subject site (offsite) will be the relevant vegetation.	Figure No. 3.1a
<p>All identified classified vegetation areas, or portions of areas, within a proposed subdivision are excluded. It is the classified vegetation external to the subdivision boundaries that is the relevant vegetation.</p> <p>This approach is applied to indicate the achievable bushfire attack levels within the subdivision and the resultant area of developable land on all lots where buildings will be subject to BAL-29 or less. It is based on the following assumptions:</p> <ol style="list-style-type: none"> <li>1. Any classified vegetation within the subdivision can potentially be managed or removed by the developer and/or landowner to meet asset protection zone standards; and</li> <li>2. Future development and consequent removal/management of vegetation that may take place on any adjoining land cannot be part of considerations for the subdivision.</li> </ol>	Figure No. 3.1b
The areas of classified vegetation that will remain at the intended end state of the subject development once earthworks, any clearing and/or landscaping and re-vegetation have been completed, will be the relevant vegetation for the post-development BAL contour map.	Figure No. 3.2a
Supporting Assessment Details: None Required	

### 3.1.3 Summary Site Data Applied to Construction of the BAL Contour Map(s)

Table 3.1: Summary of applied calculation input variables applied to determining the site specific separation distances corresponding to each bushfire attack level.

SUMMARY OF CALCULATION INPUT VARIABLES (INCLUDING SITE DATA) APPLIED TO THE DETERMINATION OF SEPARATION DISTANCES CORRESPONDING TO BUSHFIRE ATTACK LEVELS <sup>1</sup>												
Applied BAL Determination Method		METHOD 1 - SIMPLIFIED PROCEDURE (AS 3959:2018 CLAUSE 2.2)										
Calculation Variables Corresponding to BAL Determination Method												
Methods 1 and 2		Method 1			Method 2							
Vegetation Classification		FDI	Effective Slope		Site Slope	FFDI or GFDI	Flame Temp.	Elevation of Receiver	Flame Width	Fireline Intensity	Flame Length	Modified View Factor
			Applied Range	Measured								
Area	Class		degree range	degrees	degrees		K	metres	metres	kW/m	metres	% Reduction
1	Excluded cl 2.2.3.2(e & f)	80	N/A	N/A								
2	(C) Shrubland	80	Upslope or flat 0	flat 0								
3	(D) Scrub	80	Upslope or flat 0	flat 0								
4	(A) Forest	80	Upslope or flat 0	flat 0								

<sup>1</sup> All data and information supporting the determination of the classifications and values stated in this table and any associated justification, is presented in Appendix A. Where the values are stated as 'default' these are either the values stated in AS 3959:2018, Table B1 or the values calculated as intermediate or final outputs through application of the equations of the AS 3959:2018 BAL determination methodology. They are not values derived by the assessor.



Table 3.2: Vegetation separation distances corresponding to radiant heat levels and illustrated as BAL contours in Figure 3.2a.

THE CALCULATED VEGETATION SEPARATION DISTANCES CORRESPONDING TO THE STATED LEVEL OF RADIANT HEAT <sup>1</sup>									
Vegetation Classification		Separation Distances Corresponding to Stated Level of Radiant Heat (metres)							
		Bushfire Attack Level						Maximum Radiant Heat Flux	
Area	Class	BAL-FZ	BAL-40	BAL-29	BAL-19	BAL12.5	BAL-LOW	10 kW/m <sup>2</sup>	2 kW/m <sup>2</sup>
1	Excluded cl 2.2.3.2(e & f)	N/A	N/A	N/A	N/A	N/A	N/A		
2	(C) Shrubland	<7	7-<9	9-<13	13-<19	19-<100	>100		
3	(D) Scrub	<10	10-<13	13-<19	19-<27	27-<100	>100		
4	(A) Forest	<16	16-<21	21-<31	31-<42	42-<100	>100		

<sup>1</sup> All calculation input variables are presented in Table 3.1. The summary 'printouts' of calculation input and output values for each area of classified vegetation are presented in Appendix A.

Figure 3.2a

# BAL Contour Map - (Post Development)

Lot 99 on Plan / Diagram: P069929  
 Dalwallinu-Kalannie Road  
 Dalwallinu  
 Shire of Dalwallinu

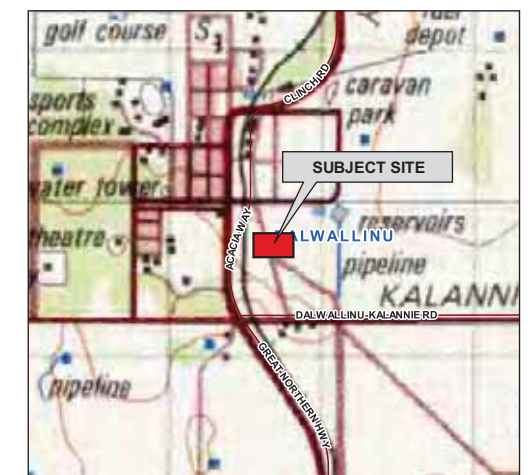
----- LEGEND -----

- Balance Lot 99
- Subject Site - (Stage 1)
- Emergency Access Way**
  - EAW - Temporary
  - Proposed Subdivision
  - Proposed Carriageway
- Asset Protection Zone**
  - APZ - BAL-29
  - APZ Distance (m)
- Assessment Area**
  - 100m Buffer
  - 150m Buffer
- Bushfire Attack Levels**
  - BAL-FZ
  - BAL-40
  - BAL-29
  - BAL-19
  - BAL-12.5
  - BAL-LOW



Metres

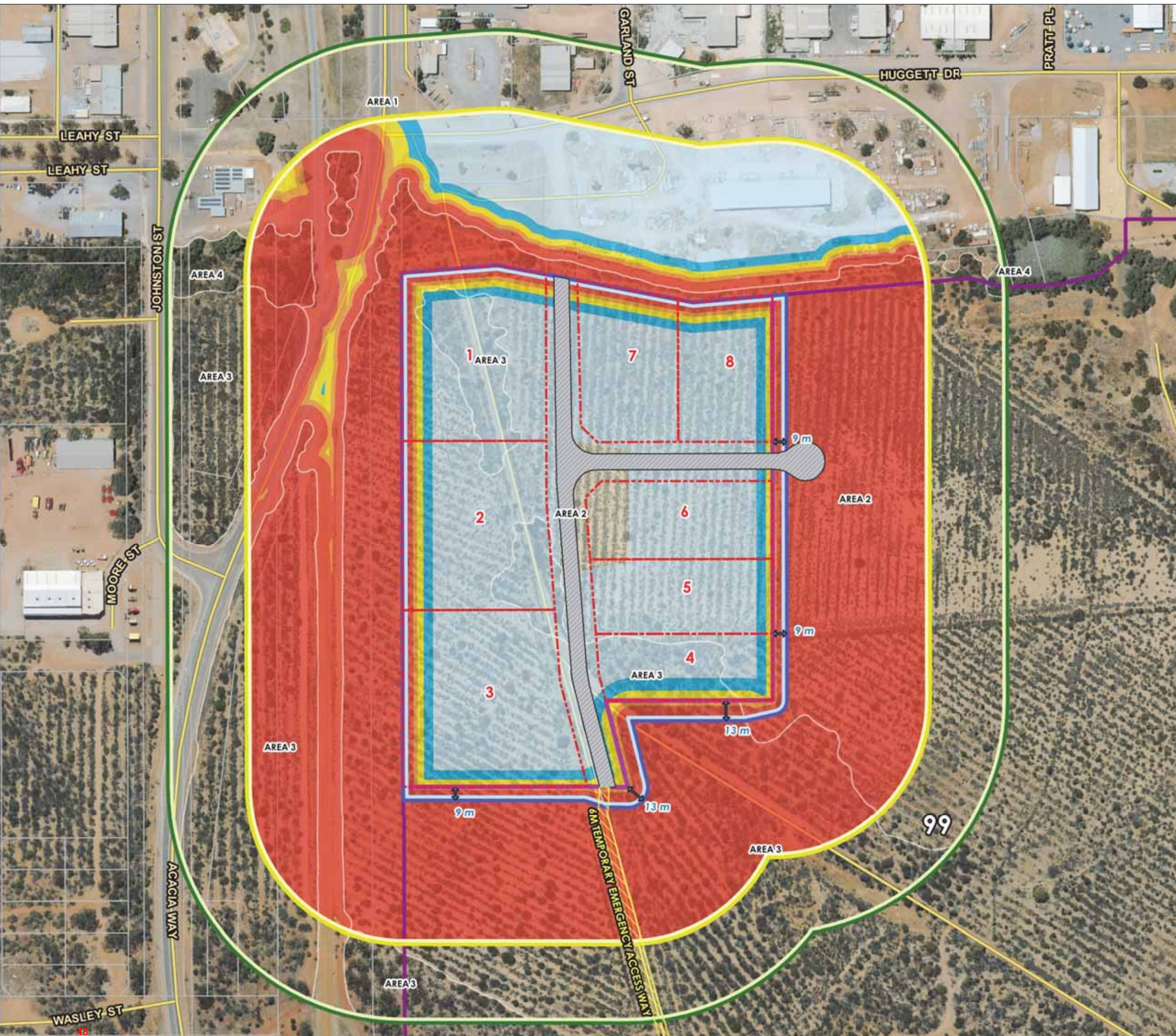
----- LOCALITY -----



AERIAL IMAGERY: Landgate/SLIP



Coordinate System: GDA 1994 MGA Zone 50  
 Projection: Universal Transverse Mercator Units: Metre  
 Map by: Sarina Gorman 07-10-2022  
 SCALE (A3): 1 : 2300



### 3.1.5 BAL Ratings Derived from the Contour Map

Table 3.3: Indicative and determined BAL(s) for future buildings/structures on the proposed lots.

BUSHFIRE ATTACK LEVEL FOR FUTURE BUILDINGS / STRUCTURES ON STATED LOT <sup>1</sup>		
Lot No.	Future Buildings / Structure	
	Indicative BAL <sup>2</sup>	Determined BAL <sup>2</sup>
1	BAL-FZ – See Note <sup>3</sup> Below	Not Determined
2	BAL-FZ – See Note <sup>3</sup> Below	Not Determined
3	BAL-FZ – See Note <sup>3</sup> Below	Not Determined
4	BAL-29	Not Determined
5	BAL-29	Not Determined
6	BAL-29	Not Determined
7	BAL-FZ – See Note <sup>3</sup> Below	Not Determined
8	BAL-FZ – See Note <sup>3</sup> Below	Not Determined

<sup>1</sup> The assessment data used to derive the BAL ratings is sourced from Table 3.1 and Figure 3.2a.

<sup>2</sup> Refer to the start of Section 3 for an explanation of indicative versus determined BAL ratings.

<sup>3</sup> Proposed Lots 1-3 & 7-8 - The lot size will provide sufficient area to accommodate a building and the establishment of an APZ to ensure a maximum BAL rating of BAL-29 will apply to that building, thus achieving the Acceptable Solutions Established by the Guidelines for Planning in Bushfire Prone Areas.

## 4 IDENTIFICATION OF BUSHFIRE HAZARD ISSUES

The Guidelines for Planning in Bushfire Prone Areas (WAPC 2021 v1.4), Appendix 5, establish that the application of this section of the BMP is intended to support **strategic planning** proposals. At the strategic planning stage there will typically be insufficient proposed development detail to enable all required assessments, including the assessment against the bushfire protection criteria.

### Strategic Planning Proposals

For strategic planning proposals this section of the BMP will identify:

- Issues associated with the level of the threats presented by any identified bushfire hazard;
- Issues associated with the ability to implement sufficient and effective bushfire protection measures to reduce the exposure and vulnerability levels (of elements exposed to the hazard threats), to a tolerable or acceptable level; and
- Issues that will need to be considered at subsequent planning stages.

### All Other Planning Proposals

For all other planning stages, this BMP will address what are effectively the same relevant issues but do it within the following sections:

- Section 2 – Environmental Conservation: Assess environmental, biodiversity and conservation values);
- Section 3 – Potential Bushfire Impact: Assess the bushfire threats with the focus on flame contact and radiant heat; and
- Section 5 – Assessment Against the Bushfire Protection Criteria (including the guidance provided by the *Position Statement: ‘Planning in bushfire prone areas – Demonstrating Element 1: Location and Element 2’*): Assess the ability of the proposed development to apply the required bushfire protection measures thereby enabling it to be considered for planning approval for these factors.

Is the proposed development a strategic planning proposal?

No

## 5 ASSESSMENT AGAINST THE BUSHFIRE PROTECTION CRITERIA (GUIDELINES V1.4)

### 5.1 Bushfire Protection Criteria Elements Applicable to the Proposed Development/Use

#### APPLICATION OF THE CRITERIA, ACCEPTABLE SOLUTIONS AND PERFORMANCE ASSESSMENT

The criteria are divided into five elements – location, siting and design, vehicular access, water and vulnerable tourism land uses. Each element has an intent outlining the desired outcome for the element and reflects identified planning and policy requirements in respect of each issue.

The example acceptable solutions (bushfire protection measures) provide one way of meeting the element's intent. Compliance with these automatically achieves the element's intent and provides a straightforward pathway for assessment and approval.

Where the acceptable solutions cannot be met, the ability to develop design responses (as alternative solutions that meet bushfire performance requirements) is an alternative pathway that is provided by addressing the applicable performance principles (as general statements of how best to achieve the intent of the element).

A merit based assessment is established by the SPP 3.7 and the Guidelines as an additional alternative pathway along with the ability of using discretion in making approval decisions (sections 2.5, 2.6 and 2.7). This is formally applied to certain development (minor and unavoidable – sections 5.4.1 and 5.7). Relevant decisions by the State Administrative Tribunal have also supported this approach more generally.

Elements 1 – 4 should be applied for all strategic planning proposals, subdivision or development applications, except for vulnerable tourism land uses which should refer to Element 5. Element 5 incorporates the bushfire protection criteria in Elements 1 – 4 but caters them specifically to tourism land uses. (Guidelines DPLH 2021v1.4)

The Bushfire Protection Criteria	Applicable to the Proposed Development/Use
Element 1: Location	Yes
Element 2: Siting and Design	Yes
Element 3: Vehicular Access	Yes
Element 4: Water	Yes
Element 5: Vulnerable Tourism Land Uses	No

### 5.2 Local Government Variations to Apply

Local governments may add to or modify the acceptable solutions to recognise special local or regional circumstances (e.g., topography / vegetation / climate). These are to be endorsed by both the WAPC and DFES before they can be considered in planning assessments. (Guidelines DPLH 2021v1.4).

Do endorsed regional or local variations to the acceptable solutions apply to the assessments against the Bushfire Protection Criteria for the proposed development /use?

None known or identified

### 5.3 Assessment Statements for Element 1: Location

LOCATION	
<b>Element Intent</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.
<b>Proposed Development/Use – Relevant Planning Stage</b>	(Sb) Structure plan where the lot layout is known and subdivision application
<b>Element Compliance Statement</b>	The proposed development/use achieves the intent of the element by being fully compliant with all applicable acceptable solutions.
<b>Pathway Applied to Provide an Alternative Solution</b>	N/A
<b>Acceptable Solutions - Assessment Statements</b>	
<p><i>All details of acceptable solution requirements are established in the Guidelines for Planning in Bushfire Prone Areas, DPLH v1.4 (Guidelines) and apply the guidance established by the Position Statement: ‘Planning in bushfire prone areas – Demonstrating Element 1: Location and Element 2: Siting and design’ (WAPC Nov 2019) and the ‘Bushfire Management Plan Guidance for the Dampier Peninsula’ (WA Department of Planning, Lands and Heritage, 2021 Rev B) as relevant. These documents are available at <a href="https://www.wa.gov.au/government/document-collections/state-planning-policy-37-planning-bushfire-prone-areas">https://www.wa.gov.au/government/document-collections/state-planning-policy-37-planning-bushfire-prone-areas</a>.</i></p>	
<b>Solution Component Check Box Legend</b>	<input checked="" type="checkbox"/> Relevant & met <input checked="" type="checkbox"/> Relevant & not met <input type="checkbox"/> Not relevant
<b>A1.1 Development location</b>	<b>Applicable:</b> <span style="background-color: #70AD47; color: white; padding: 2px;">Yes</span> <b>Compliant:</b> <span style="background-color: #70AD47; color: white; padding: 2px;">Yes</span>
<b>ASSESSMENT AGAINST THE REQUIREMENTS ESTABLISHED BY THE GUIDELINES</b>	
<input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> The subdivision 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.	
<b>Supporting Assessment Details:</b>	
<p>The proposed subdivision will provide an area of land within each lot that can be considered suitable for development as BAL-40 or BAL-FZ construction requirements will not be required to be applied. This meets the requirements established by Acceptable Solution A1.1 and its associated explanatory note.</p>	
<b>ASSESSMENTS APPLYING THE GUIDANCE ESTABLISHED BY THE WAPC ELEMENT 1 &amp; 2 POSITION STATEMENT (2019)</b>	
<p>“Consideration should be given to the site context where ‘area’ is the land both within and adjoining the subject site. The hazards remaining within the site should not be considered in isolation of the hazards adjoining the site, as the potential impact of a bushfire will be dependent on the wider risk context, including how a bushfire could affect the site and the conditions for a bushfire to occur within the site.”</p> <p><b>Strategic Planning Proposals:</b> Consider the threat levels from any vegetation <u>adjoining</u> and <u>within</u> the subject site for which the potential intensity of a bushfire in that vegetation would result in it being classified as an Extreme Bushfire Hazard Level (BHL). Identify any proposed design strategies to reduce these threats.</p> <p><b>Structure Plans (lot layout known) and Subdivision Applications:</b> As for strategic planning proposals but <u>within</u> the subject site the relevant threat levels to consider are the radiant heat levels represented by BAL-FZ and BAL-40 ratings.</p>	
<b>The Hazard Within the Subject Site</b>	
<p>The proposal is for the subdivision of one (1) large existing allotment into eight (8) smaller, commercial allotments and one (1) balance allotment. The subject site currently lies within a bushfire prone area as defined by the OBRM map of Bushfire Prone Areas. It exists in an established and developing residential area (Local Planning Scheme Zoning =</p>	

General Industry) (in the suburb of Dalwallinu). The removal or modification of classifiable vegetation will be required within the boundaries of the subject allotment (subject to approval by the Local Government) to ensure any future structures achieve separation to bushfire prone vegetation that does not exceed 29 kW/m<sup>2</sup>. Asset Protection Zones (APZ) can be established within the extents of the subject lots.

The subject site is currently vegetated with vegetation being classified as Class C Shrubland and Class D Scrub. The impact of the slope under the vegetation will be dependent on a bushfire's direction of travel. The topography in the area surrounding the proposed development has an overall flat land appearance.

Bushfire rates of spread will be predominantly influenced by wind speed and direction rather than degrees of upslope.

Intense bushfire behaviour is possible, particularly if vegetation within the subject land is ignited by bushfire in the adjoining hazards and they are involved together. However, the ability to establish a BAL-29 dimensioned APZ within each of the proposed allotments reduces the threat of greater levels of radiant heat or flame contact further.

The primary bushfire threat from bushfire prone vegetation remaining within the subject land will be embers. This threat will be mitigated by the application of appropriate building design, bushfire construction standards and the ongoing maintenance of the APZ to ensure the buildings will not be impacted by consequential fire within combustible materials used, stored or accumulated within the APZ.

### **The Hazard Adjoining the Subject Site**

Bushfire prone vegetation within the area exists as retained vegetation classified as Class A Forest, Class C Shrubland and Class D Scrub. All areas of classified vegetation are located within 150 metres of this proposal. The undeveloped land within the locality supports this vegetation. Managed areas within the established commercial area to the north of the subject site comprises of maintained private gardens, road verges, driveways and cleared areas surrounding existing structures.

The adjoining land cannot be considered as rugged (which would present the potential for more extreme and variable fire behaviour).

Bushfire prone vegetation adjoining the existing subject land exists as a combination of Class A – Forest, Class C – Shrubland and Class D Scrub as mentioned above. The extent of this hazard is shown in Figures 3.1b and 3.2a. These areas of vegetation are occurring under one main scenario:

1. Vegetation that has been retained on adjoining land, which presents the most significant extent of bushfire prone vegetation.

The potential bushfire impact on persons and property within the site will be an increase in the level of ember attack and potential for running fire on site in the event of a bushfire.

## 5.4 Assessment Statements for Element 2: Siting and Design

SITING AND DESIGN OF DEVELOPMENT			
Element Intent	To ensure that the siting and design of development minimises the level of bushfire impact. (BPP Note: not building/construction design)		
Proposed Development/Use – Relevant Planning Stage	(Sb) Structure plan where the lot layout is known and subdivision application		
Element Compliance Statement	The proposed development/use achieves the intent of the element by being fully compliant with all applicable acceptable solutions.		
Pathway Applied to Provide an Alternative Solution	N/A		
<b>Acceptable Solutions - Assessment Statements</b>			
<p>All details of acceptable solution requirements are established in the Guidelines for Planning in Bushfire Prone Areas, DPLH v1.4 (Guidelines) and apply the guidance established by the Position Statement: 'Planning in bushfire prone areas – Demonstrating Element 1: Location and Element 2: Siting and design' (WAPC Nov 2019) and the 'Bushfire Management Plan Guidance for the Dampier Peninsula' (WA Department of Planning, Lands and Heritage, 2021 Rev B) as relevant. These documents are available at <a href="https://www.wa.gov.au/government/document-collections/state-planning-policy-37-planning-bushfire-prone-areas">https://www.wa.gov.au/government/document-collections/state-planning-policy-37-planning-bushfire-prone-areas</a>.</p>			
<b>Solution Component Check Box Legend</b> <input checked="" type="checkbox"/> Relevant & met <input checked="" type="checkbox"/> Relevant & not met <input type="checkbox"/> Not relevant			
A2.1 Asset Protection Zone (APZ)	Applicable:	Yes	Compliant: Yes
<b>UNDERSTANDING THE APZ <u>PLANNING</u> ASSESSMENT VERSUS APZ <u>IMPLEMENTATION</u> REQUIREMENTS</b>			
<div style="border: 1px solid black; padding: 10px; margin: 10px auto; width: 80%;"> <p><i>Note: Appendix B: 'Onsite Vegetation Management' provides further information regarding the different APZ dimensions that can be referenced, their purpose and the specifications of the APZ that is to be established and maintained.</i></p> </div>			
<p>To reduce risk to buildings (and indirectly to persons) from a bushfire event, a key bushfire protection measure required to be implemented is reducing the exposure of building elements to the direct bushfire threats of flame contact, radiant heat and embers and the indirect threat of consequential fires that result from the subsequent ignition of other combustible materials that may be constructed, stored or accumulate in the area surrounding buildings.</p> <p>This is achieved by separating existing and/or proposed buildings from areas of classified bushfire prone vegetation. The total area of separation is identified as the Asset Protection Zone (APZ), which exists as an area of minimal fire fuels (or no fuel) and is considered able and likely to remain a low threat and/or be maintained to a low threat state in perpetuity. The required separation distances will vary according to the site specific conditions.</p> <p><b>THE APZ PLANNING ASSESSMENT:</b> To achieve planning approval for this factor it must be demonstrated that separation distances that correspond to a maximum level of radiant transfer to a building (29 kW/m<sup>2</sup>), either exist or can be established (with certain exceptions). These separation distances are the dimensions of the '<b>Planning BAL-29' APZ</b>.</p> <p>The purpose of this planning assessment is to identify and justify how this low threat area (the Planning BAL-29' APZ) can exist – or not.</p> <p><b>THE DIMENSIONS OF THE 'PLANNING BAL-29' APZ MAY EXTEND OUTSIDE SUBJECT LOT BOUNDARIES. THE APZ MAY NOT BE EQUIDISTANT AROUND A BUILDING AS THE REQUIRED SEPARATION DISTANCES DEPEND ON THE TYPE OF VEGETATION PRESENT IN EACH DIRECTION ALONG WITH OTHER SITE VARIABLES.</b></p> <p><b>IT IS IMPORTANT TO UNDERSTAND THAT THE 'PLANNING BAL-29' APZ IS NOT NECESSARILY THE SIZE OF THE APZ THAT MUST BE PHYSICALLY ESTABLISHED AND MAINTAINED BY A LANDOWNER. IT IS A SCREENING TOOL FOR MAKING PLANNING APPROVAL DECISIONS.</b></p> <p><b>THE APZ TO BE IMPLEMENTED:</b> The required dimensions to be established and maintained by the landowner will be those that correspond to the determined BAL rating of a relevant building but limited to the land of the subject lot</p>			



(with limited exceptions). The requirement for a greater dimension within a lot will only exist if it is required by the relevant local government's annual firebreak / hazard reduction notice or the APZ size is increased as an additional bushfire protection measure as a recommendation of this BMP.

Within this BMP it is the 'Planning BAL-29' APZ that will be identified on maps, diagrams and in tables as necessary.

The exceptions are the data provided in Appendix B part B1 and when a Property Bushfire Management Statement is required to be produced for a development application, in which case the '**Landowner**' APZ dimensions will be shown on the site map (refer to s6.3.1 when relevant).

#### ASSESSMENT AGAINST THE REQUIREMENTS ESTABLISHED BY THE GUIDELINES

**APZ Width:** The proposed (or a future) habitable building(s) on the lot(s) of the proposed development - or an existing building for a proposed change of use - can be (or is) located within the developable portion of the lot and be surrounded by a 'Planning BAL-29' APZ of the required dimensions (measured from any external wall or supporting post or column to the edge of the classified vegetation), that will ensure their exposure to the potential radiant heat impact of a bushfire does not exceed 29 kW/m<sup>2</sup>.

Notes:

If an existing building (that will remain) can currently establish a 'Planning BAL-29' APZ and the proposed subdivision either retains or removes this capability, then this may need to be discussed as either a positive (capability retained) or a negative (capability removed).

When established by the relevant decision maker, the meeting of this requirement may also apply to proposed non-habitable buildings and other structures.

**Restriction on Building Location:** It has been identified that the current developable portion of a lot(s) provides for the proposed future (or a future) building/structure location that will result in that building/structure being subject to a BA-40 or BAL-FZ rating. Consequently, it may be considered necessary to impose the condition that a restrictive covenant to the benefit of the local government pursuant to section 129BA of the Transfer of Land Act 1893, is to be placed on the certificate(s) of title of the proposed lot(s) advising of the existence of a restriction on the use of that portion of land (refer to Code F3 of Model Subdivision Conditions Schedule, WAPC June 2021 and Guidelines s5.3.2).

**APZ Location:** The required dimensions for a 'Planning BAL-29' APZ can be contained solely within the boundaries of the lot(s) on which the proposed (or a future) habitable building(s) - or an existing building(s) for a proposed change of use - is situated.

**APZ Location:** The required dimensions for a 'Planning BAL-29' APZ can be partly established within the boundaries of the lot(s) on which the proposed (or a future) habitable building(s) - or an existing building(s) for a proposed change of use - is situated. The balance of the APZ would exist on adjoining land that satisfies the exclusion requirements of AS 3959:2018 cl 2.2.3.2 for low threat vegetation and non-vegetated areas.

**APZ Location:** It can be justified that any adjoining (offsite) land forming part of a 'Planning BAL-29' APZ will:

- If non-vegetated, remain in this condition in perpetuity; and/or
- If vegetated, be low threat vegetation managed in a minimal fuel condition in perpetuity.

**APZ Management:** The area of land (within each lot boundary), that is to make up the required 'Landowner' APZ dimensions (refer to Appendix B, Part B1), can and will be managed in accordance with the requirements of the Guidelines Schedule 1 'Standards for Asset Protection Zones' (refer to Appendix B).

**Subdivision Staging:** There are undeveloped future stages of subdivision, containing bushfire prone vegetation, that have been taken into consideration for their potentially 'temporary' impact on the ability to establish a 'Planning BAL-29' APZ on adjoining developed lots. A staging plan is developed to manage this.

**Firebreak/Hazard Reduction Notice:** Any additional requirements established by the relevant local government's annual notice to install firebreaks and manage fuel loads (issued under s33 of the Bushfires Act 1954), can and will be complied with.

**Supporting Assessment Details:**

Asset protection zones will consist of land both internal and external to the subject land. The APZ will consist of consist of the following:

- Roads/Hardstand areas
- Footpaths
- Any applicable landscaping

All vegetation that will require modification/removal and future management (where applicable) is onsite and therefore under the control of the landowner.

- Retained vegetation or re-introduced vegetation within the APZ's for the purposes of landscaping will be managed in accordance with the technical requirements established by the Schedule 1: 'Standards for Asset Protection Zones (Guidelines). The APZ specifications are also detailed in Appendix 1 and the Shire of Dalwallinu may have additional requirements established by their Bushfire Notice.

**ASSESSMENTS APPLYING THE GUIDANCE ESTABLISHED BY THE WAPC ELEMENT 1 & 2 POSITION STATEMENT (2019)**

**Strategic Planning Proposals:** "At this planning level there may not be enough detail to demonstrate compliance with this element. The decision-maker may consider this element is satisfied where A1.1 is met."

**Structure Plans (lot layout known) and Subdivision Applications:** "Provided that Element 1 is satisfied, the decision-maker may consider approving lot(s) containing BAL-40 or BAL-FZ under the following scenarios.

**Scenario A:** The lots sizes provide sufficient area to accommodate a building and the establishment of an APZ dimensioned to ensure a maximum BAL rating of BAL-29 will apply to that building.

## 5.5 Assessment Statements for Element 3: Vehicular Access

VEHICULAR ACCESS	
<b>Element Intent</b>	To ensure that the vehicular access serving a subdivision/development is available and safe during a bushfire event.
<b>Proposed Development/Use – Relevant Planning Stage</b>	(Sb) Structure plan where the lot layout is known and subdivision application
<b>Element Compliance Statement</b>	The proposed development/use achieves the intent of the element by being fully compliant with all applicable acceptable solutions.
<b>Pathway Applied to Provide an Alternative Solution</b>	N/A
<b>Acceptable Solutions - Assessment Statements</b>	
<p><i>All details of acceptable solution requirements are established in the Guidelines for Planning in Bushfire Prone Areas, DPLH v1.4 (Guidelines) and apply the guidance established by the Position Statement: ‘Planning in bushfire prone areas – Demonstrating Element 1: Location and Element 2: Siting and design’ (WAPC Nov 2019) and the ‘Bushfire Management Plan Guidance for the Dampier Peninsula’ (WA Department of Planning, Lands and Heritage, 2021 Rev B) as relevant. These documents are available at <a href="https://www.wa.gov.au/government/document-collections/state-planning-policy-37-planning-bushfire-prone-areas">https://www.wa.gov.au/government/document-collections/state-planning-policy-37-planning-bushfire-prone-areas</a>.</i></p> <p><i>The technical construction requirements for access types and components, and for each firefighting water supply component, are also presented in Appendices 2 and 3. The local government will advise the proponent where different requirements are to apply and when any additional specifications such as those for signage and gates are to apply (these are included in the relevant appendix if requested by the local government).</i></p>	
<b>Solution Component Check Box Legend</b>	<input checked="" type="checkbox"/> Relevant & met <input checked="" type="checkbox"/> Relevant & not met <input type="checkbox"/> Not relevant
<b>A3.1 Public roads</b>	<b>Applicable:</b> <span style="background-color: #76B82A; color: white; padding: 2px;">Yes</span> <b>Compliant:</b> <span style="background-color: #76B82A; color: white; padding: 2px;">Yes</span>
<input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	The technical construction requirements of vertical clearance and weight capacity (Guidelines, Table 6) can and will be complied with (Refer also to Appendix C in this BMP).
<input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<p>All other applicable technical requirements of trafficable width, gradients and curves, are required to be in “accordance with the class of road as specified in the IPWEA Subdivision Guidelines, Liveable Neighbourhoods, Ausroad Standards and/or any applicable standard in the local government area” (Guidelines, Table 6 and E3.1. Refer also to Appendix C in this BMP).</p> <p>The assessment conducted for the bushfire management plan indicates that it is likely that the proposed development can and will comply with the requirements.</p> <p>However, the applicable class of road, the associated technical requirements and subsequent proposal compliance, will need to be confirmed with the relevant local government and/or Main Roads WA.</p> <p>or</p> <p>The applicable class(s) of road and technical requirements have been confirmed with the relevant local government/Main Roads WA. These can and will be complied with.</p>
<input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	A traversable verge is available adjacent to classified vegetation (Guidelines, E3.1), as recommended.
<b>Supporting Assessment Details:</b> None Required.	

A3.2a Multiple access routes	Applicable:	Yes	Compliant:	Yes
<input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> For each lot, two-way public road access is provided in two different directions to at least two different suitable destinations with an all-weather surface.				
<input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> The two-way access <u>is</u> available at an intersection no greater than 200m from the relevant boundary of each lot, via a no-through road.				
<p>The two-way access is <u>not</u> available at an intersection within 200m from the relevant boundary of each lot. However, the available no-through road satisfies the established exemption for the length limitation in every case. These requirements are:</p> <input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/> <ul style="list-style-type: none"> <li>• Demonstration of no alternative access (refer to A3.3 below);</li> <li>• The no-through road travels towards a suitable destination; and</li> <li>• The balance of the no-through road that is greater than 200m from the relevant lot boundary is within a residential built-out area or is potentially subject to radiant heat levels from adjacent bushfire prone vegetation that correspond to the BAL-LOW rating (&lt;12.5 kW/m<sup>2</sup>).</li> </ul>				
<p><b>Supporting Assessment Details:</b> Compliance with the Acceptable Solution can be achieved - The proposed internal public road network and Temporary Emergency Access Way can provide two alternatives for emergency access/egress to two different destinations in two different directions. The proposed public road network will provide a connection to Huggett Drive (existing public road network) to the North. The proposed Temporary Emergency Access Way will provide a connection to Dalwallinu-Kalannie Road (existing public road network) to the south. The proposed Temporary Emergency Access is approximately 360 metres in length (within the allowable 500 metres) thus, satisfying the Acceptable Solution.</p>				
A3.2b Emergency access way	Applicable:	Yes	Compliant:	Yes
<input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> The proposed or existing EAW provides a through connection to a public road.				
<input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> The proposed or existing EAW is less than 500m in length and will be signposted and gated (remaining unlocked) to the specifications stated in the Guidelines and/or required by the relevant local government.				
<input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> The technical construction requirements for widths, clearances, capacity, gradients and curves (Guidelines, Table 6 and E3.2b. Refer also to Appendix C in this BMP), can and will be complied with.				
<p><b>Supporting Assessment Details:</b> Refer to Figure 1.2.1 – It is anticipated that Balance Lot 99 will be further subdivided in the future. The proposed Temporary Emergency Access Way will be used to facilitate the staging arrangements of Balance Lot 99 as the provision of two public access routes is currently not possible with Stage 1. It is approximately 360 metres in length (within the allowable 500 metres), providing a connection to the existing public road network (Dalwallinu-Kalannie Road) to the south of the subject site.</p>				
A3.3 Through-roads	Applicable:	Yes	Compliant:	Yes
<input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/> A no-through public road is necessary as no alternative road layout exists due to site constraints.				
<input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> The no-through public road length does not exceed the established maximum of 200m to an intersection providing two-way access (Guidelines, E3.3).				
<input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/> The no-through public road exceeds 200m but satisfies the exemption provisions of A3.2a as demonstrated in A3.2a above.				

<input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	The public road technical construction requirements (Guidelines, Table 6 and E3.1. Refer also to Appendix C in this BMP), can and will be complied with as established in A3.1 above.
<input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	The turnaround area requirements (Guidelines, Figure 24) can and will be complied with.
<b>Supporting Assessment Details:</b> None Required.	
<b>A3.4a Perimeter roads</b>	<b>Applicable:</b> No <b>Compliant:</b> N/A
<input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/>	The proposed greenfield or infill development consists of 10 or more lots (including those that are part of a staged subdivision) and therefore should have a perimeter road. This is planned to be installed.
<input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/>	<p>The proposed greenfield or infill development consists of 10 or more lots (including those that are part of a staged subdivision). However, it is not required on the established basis of:</p> <ul style="list-style-type: none"> <li>The vegetation adjoining the proposed lots is classified Class G Grassland;</li> <li>Lots are zoned rural living or equivalent;</li> <li>It is demonstrated that it cannot be provided due to site constraints; or</li> <li>All lots have existing frontage to a public road.</li> </ul>
<input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/>	The technical construction requirements of widths, clearances, capacity, gradients and curves (Guidelines, Table 6 and E3.4a) can and will be complied with.
<b>Supporting Assessment Details:</b> None Required.	
<b>A3.4b Fire service access route</b>	<b>Applicable:</b> No <b>Compliant:</b> N/A
<input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/>	The FSAR can be installed as a through-route with no dead ends, linked to the internal road system every 500m and is no further than 500m from a public road.
<input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/>	The technical construction requirements of widths, clearances, capacity, gradients and curves (Guidelines, Table 6 and E3.4b. Refer also to Appendix C in this BMP), can and will be complied with.
<input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/>	The FSAR can and will be signposted. Where gates are required by the relevant local government, the specifications can be complied with.
<input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/>	Turnaround areas (to accommodate type 3.4 fire appliances) can and will be installed every 500m on the FSAR.
<b>Supporting Assessment Details:</b> None Required.	
<b>A3.5 Battle-axe access legs</b>	<b>Applicable:</b> No <b>Compliant:</b> N/A
<input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/>	A battle-axe leg cannot be avoided due to site constraints.
<input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/>	The proposed development is in a reticulated area and the battle-axe access leg length from a public road is no greater than 50m. No technical requirements need to be met.
<input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/>	The technical construction requirements for widths, clearances, capacity, gradients and curves (Guidelines, Table 6 and E3.5. Refer also to Appendix C in this BMP), can and will be complied with.

<input type="checkbox"/> <input type="checkbox"/> <input checked="" type="radio"/> Passing bays can and will be installed every 200m with a minimum length of 20m and a minimum additional trafficable width of 2m.			
<b>Supporting Assessment Details:</b> None Required.			
<b>A3.6 Private driveways</b>		<b>Applicable:</b>	<b>Compliant:</b>
		No	N/A
<input type="checkbox"/> <input type="checkbox"/> <input checked="" type="radio"/> The private driveway to the most distant external part of the development site is within a lot serviced by reticulated water, is accessed via a public road with a speed limit of 70 km/hr or less and has a length is no greater than 70m (measured as a hose lay). No technical requirements need to be met.			
<input type="checkbox"/> <input type="checkbox"/> <input checked="" type="radio"/> The technical construction requirements for widths, clearances, capacity, gradients and curves (Guidelines, Table 6 and E3.6. Refer also to Appendix C in this BMP), can and will be complied with.			
<input type="checkbox"/> <input type="checkbox"/> <input checked="" type="radio"/> Passing bays can and will be installed every 200m with a minimum length of 20m and a minimum additional trafficable width of 2m.			
<input type="checkbox"/> <input type="checkbox"/> <input checked="" type="radio"/> The turnaround area requirements (Guidelines, Figure 28, and within 30m of the habitable building) can and will be complied with.			
<b>Supporting Assessment Details:</b> None Required.			

## 5.6 Assessment Statements for Element 4: Water

FIREFIGHTING WATER	
<b>Element Intent</b>	To ensure water is available to enable people, property and infrastructure to be defended from bushfire.
<b>Proposed Development/Use – Relevant Planning Stage</b>	(Sb) Structure plan where the lot layout is known and subdivision application
<b>Element Compliance Statement</b>	The proposed development/use cannot fully comply with all applicable acceptable solutions. An alternative solution(s) is provided.
<b>Pathway Applied to Provide an Alternative Solution</b>	N/A
<b>Acceptable Solutions - Assessment Statements</b>	
<p><i>All details of acceptable solution requirements are established in the Guidelines for Planning in Bushfire Prone Areas, DPLH v1.4 (Guidelines) and apply the guidance established by the Position Statement: ‘Planning in bushfire prone areas – Demonstrating Element 1: Location and Element 2: Siting and design’ (WAPC Nov 2019) and the ‘Bushfire Management Plan Guidance for the Dampier Peninsula’ (WA Department of Planning, Lands and Heritage, 2021 Rev B) as relevant. These documents are available at <a href="https://www.wa.gov.au/government/document-collections/state-planning-policy-37-planning-bushfire-prone-areas">https://www.wa.gov.au/government/document-collections/state-planning-policy-37-planning-bushfire-prone-areas</a>.</i></p> <p><i>The technical construction requirements for access types and components, and for each firefighting water supply component, are also presented in Appendices 2 and 3. The local government will advise the proponent where different requirements are to apply and when any additional specifications such as those for signage and gates are to apply (these are included in the relevant appendix if requested by the local government).</i></p>	
<b>Solution Component Check Box Legend</b>	<input checked="" type="checkbox"/> Relevant & met <input checked="" type="checkbox"/> Relevant & not met <input type="checkbox"/> Not relevant
<b>A4.1 Identification of future firefighting water supply</b>	<b>Applicable:</b> <span style="background-color: #92D050; padding: 2px;">Yes</span> <b>Compliant:</b> <span style="background-color: #92D050; padding: 2px;">Yes</span>
<input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	It can be demonstrated that reticulated or sufficient non-reticulated water for firefighting 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.
<b>Supporting Assessment Details:</b> Refer to Figure 1.2 of this plan. Potential hydrant locations have been indicated in this plan in accordance with the specifications of the relevant water supply authority.	
<b>A4.2 Provision of water for firefighting purposes</b>	<b>Applicable:</b> <span style="background-color: #92D050; padding: 2px;">Yes</span> <b>Compliant:</b> <span style="background-color: #92D050; padding: 2px;">Yes</span>
<input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	A reticulated water supply is available to the proposed development. The existing hydrant connection(s) are provided in accordance with the specifications of the relevant water supply authority.
<input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	A reticulated water supply will be available to the proposed development. Hydrant connection(s) can and will be provided in accordance with the specifications of the relevant water supply authority.
<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	A static water supply (tank) for firefighting purposes will be installed on each lot that is additional to any water supply that is required for drinking and other domestic purposes. The proposed subdivision will retain an existing habitable building for which the same standard of water supply will be provided.
<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	A strategic water supply (tank or tanks) for firefighting purposes will be installed within or adjacent to the proposed development that is additional to any water supply that is required for drinking and other domestic purposes. The required land will be ceded free of cost to the local government and the lot or road reserve where the tank is to be located will be identified on the plan of subdivision.

The strategic static water supply (tank or tanks) will be located no more than 10 minutes travel time from a subject site (at legal road speeds).

The technical requirements (location, number of tanks, volumes, design, construction materials, pipes and fittings), as established by the Guidelines (A4.2, E4 and Schedule 2) and/or the relevant local government, can and will be complied with.

**Supporting Assessment Details:** Refer to information contained in Appendix D for the firefighting water supply specifications and technical requirements.



## 6 RESPONSIBILITIES FOR IMPLEMENTATION AND MANAGEMENT OF THE BUSHFIRE PROTECTION MEASURES

### 6.1 Developer Responsibilities – Prior to Issue of Titles

DEVELOPER RESPONSIBILITIES – PRIOR TO ISSUE OF TITLES		
No.	Implementation Actions	Subdivision Clearance
1	<p><i>Condition that may be imposed (refer to Code F2 of Model Subdivision Conditions Schedule, WAPC June 2021 and Guidelines DPLH, 2021 v1.4, s5.3.2)</i></p> <p>A notification, pursuant to Section 165 of the <i>Planning and Development Act 2005</i>, is to be placed on the certificate(s) of title of the proposed lot(s) with a Bushfire Attack Level (BAL) rating of 12.5 or above, advising of the existence of a hazard or other factor.</p> <p>Notice of this notification is to be included on the diagram or plan of survey (deposited plan). The notification is to state as follows:</p> <p><i>“This land is within a bushfire prone area as designated by an Order made by the Fire and Emergency Services Commissioner and is/may be subject to a Bushfire Management Plan. Additional planning and building requirements may apply to development on this land.”</i> (Western Australian Planning Commission).</p>	<input type="checkbox"/>
2	Construct the public roads, including any no through roads and perimeter roads, to comply with the technical requirements referenced in the BMP.	<input type="checkbox"/>
3	Construct the emergency access ways, fire service access routes and associated signs and gates to comply with the technical requirements referenced in the BMP.	<input type="checkbox"/>
4	Install the reticulated firefighting water supply and hydrants to comply with the technical requirements referenced in the BMP.	<input type="checkbox"/>

## 6.2 Developer / Landowner Responsibilities – Prior to Sale or Occupancy/Operation

DEVELOPER/LANDOWNER RESPONSIBILITIES – PRIOR TO SALE OR OCCUPANCY/OPERATION	
No.	Implementation Actions
1	<p>Prior to sale of the subject lots, each individual lot is to be compliant with current version of the Shire of Dalwallinu Bushfire Notice issued under s33 of the Bushfires Act 1954.</p> <p>This may include standards for asset protection zones that differ from Schedule 1 in the Guidelines DPLH, 2021 v1.4, with the intent to better satisfy local conditions.</p> <p>[Refer to the 'Siting and Design' assessments against the Bushfire Protection Criteria and the information presented in Appendix B].</p>
2	<p>Prior to relevant building work, inform the builder of the existence of this approved Bushfire Management Plan (BMP). The plan identifies that the development site is within a designated bushfire prone area and states the indicative (or determined) BAL rating(s) that may (or will) be applied to buildings/structures. A BAL assessment report may be required to confirm determined ratings and will be required when ratings are indicative. BAL certificates will need to be issued to accompany building applications.</p> <p>The BMP may also establish, as an additional bushfire protection measure, that construction requirements to be applied will be those corresponding to a specified higher BAL rating.</p> <p>Compliance with the Building Code of Australia (Volumes 1 and 2 of the National Construction Code), will require certain bushfire resistant construction requirements be applied to residential buildings in bushfire prone areas (i.e., Class 1, 2 and 3 and associated Class 10a buildings and decks). Other classes of buildings may also be required to comply with these construction when established by the relevant authority or if identified as an additional bushfire protection measure within the BMP.</p> <p>The deemed to satisfy solutions that will meet the relevant bushfire performance requirements are found in AS 3959 – Construction of Building in Bushfire Prone Areas (as amended) and the NASH Standard - Steel Framed Construction in Bushfire Areas (as amended).</p>

### 6.3 Landowner / Occupier Responsibilities – Ongoing Management

LANDOWNER/OCCUPIER – ONGOING MANAGEMENT	
No.	Management Actions
1	<p>Maintain the 'Landowner' Asset Protection Zone (APZ) around habitable buildings (and other structures as required) to satisfy:</p> <ul style="list-style-type: none"> <li>• The minimum required dimensions. These are to be the greatest measurements derived from either the separation distances corresponding to the determined BAL rating for the subject building/structure, or the local government's annual firebreak / hazard reduction notice (issued under s33 of the Bushfires Act 1954), or a combination of these requirements [refer to Appendix B]; and</li> <li>• The standards established by the Guidelines DPLH, 2021 v1.4, Schedule 1, or as varied by the local government through their annually issued firebreak / hazard reduction notice when the variations have been endorsed by the WAPC and DFES as per s4.5.3 of the Guidelines.</li> </ul>
2	<p>Comply with the Shire of Dalwallinu Bushfire Notice issued under s33 of the Bush Fires Act 1954. Check the notice annually for any changes.</p>
3	<p>Maintain vehicular access routes within the lot to comply with the technical requirements referenced in the BMP and the relevant local government's annual firebreak / hazard reduction notice.</p>
4	<p>Ensure that builders engaged to construct dwellings/additions and/or other relevant structures on the lot, are aware of the existence of this approved Bushfire Management Plan (BMP). The plan identifies that the development site is within a designated bushfire prone area and states the indicative (or determined) BAL rating(s) that may (or will) be applied to buildings/structures. A BAL assessment report may be required to confirm determined ratings and will be required when ratings are indicative. BAL certificates will need to be issued to accompany building applications.</p> <p>The BMP may also establish, as an additional bushfire protection measure, that construction requirements to be applied will be those corresponding to a specified higher BAL rating.</p> <p>Compliance with the Building Code of Australia (Volumes 1 and 2 of the National Construction Code), will require certain bushfire resistant construction requirements be applied to residential buildings in bushfire prone areas (i.e., Class 1, 2 and 3 and associated Class 10a buildings and decks). Other classes of buildings may also be required to comply with these construction when established by the relevant authority or if identified as an additional bushfire protection measure within the BMP.</p> <p>The deemed to satisfy solutions that will meet the relevant bushfire performance requirements are found in AS 3959 – Construction of Building in Bushfire Prone Areas (as amended) and the NASH Standard - Steel Framed Construction in Bushfire Areas (as amended).</p>
5	<p>Ensure all future buildings the landowner has responsibility for, are designed and constructed in full compliance with:</p> <ul style="list-style-type: none"> <li>• The bushfire resistant construction requirements of the Building Code of Australia (Volumes 1 and 2 of the National Construction Code), as established by the Building Regulations 2012 (WA Building Act 2011); and</li> <li>• Any additional bushfire protection measures this Bushfire Management Plan has established are to be implemented.</li> </ul>

## 6.4 Local Government Responsibilities – Ongoing Management

LOCAL GOVERNMENT – ONGOING MANAGEMENT	
No.	Management Actions
1	<p>Monitor landowner compliance with the annual Bushfire Notice and with any bushfire protection measures that are:</p> <ul style="list-style-type: none"> <li>• Established by this BMP;</li> <li>• Are required to be maintained by the landowner/occupier; and</li> <li>• Are relevant to local government operations.</li> </ul>

## APPENDIX A: DETAILED BAL ASSESSMENT DATA AND SUPPORTING INFORMATION

### A1: BAL Assessment Inputs Common to the Method 1 and Method 2 Procedures

#### A1.1: FIRE DANGER INDICES (FDI/FDI/GFDI)

When using Method 1 the relevant FDI value required to be applied for each state and region is established by AS 3959:2018, Table 2.1. Each FDI value applied in Tables 2.4 – 2.7 represents both the Forest Fire Danger Index (FFDI) and a deemed equivalent for the Grassland Fire Danger Index (GFDI), as per Table B2 in Appendix B. When using Method 2, the relevant FFDI and GFDI are applied.

The values may be able to be refined within a jurisdiction, where sufficient climatological data is available and in consultation with the relevant authority.

Relevant Jurisdiction:	WA	Region:	Whole State	Method 1	Applied FDI:	80
				Method 2	Applied FFDI:	N/A
					Applied GFDI:	N/A

#### A1.2: VEGETATION ASSESSMENT AND CLASSIFICATION

##### Vegetation Types and Classification

In accordance with AS 3959:2018 clauses 2.2.3 and C2.2.3.1, all vegetation types within 100 metres of the 'site' (defined as "the part of the allotment of land on which a building stands or is to be erected"), are identified and classified. Any vegetation more than 100 metres from the site that has influenced the classification of vegetation within 100 metres of the site, is identified and noted. The maximum excess distance is established by AS 3959: 2018 cl 2.2.3.2 and is an additional 100 metres.

Classification is also guided by the Visual Guide for Bushfire Risk Assessment in WA (WA Department of Planning February 2016) and any relevant FPA Australia practice notes.

##### Modified Vegetation




The vegetation types have been assessed as they will be in their natural mature states, rather than what might be observed on the day. Vegetation destroyed or damaged by a bushfire or other natural disaster has been assessed on its expected re-generated mature state. Modified areas of vegetation can be excluded from classification if they consist of low threat vegetation managed in a minimal fuel condition, satisfying AS 3959:2018 s2.2.3.2(f), and there is sufficient justification to reasonable expect that this modified state will exist in perpetuity.




##### The Influence of Ground Slope





Where significant variation in effective slope exists under a consistent vegetation type, these will be delineated as separate vegetation areas to account for the difference in potential bushfire behaviour, in accordance with AS 3959:2018 clauses 2.2.5 and C2.2.5.

#### THE INFLUENCE OF VEGETATION GREATER THAN 100 METRES FROM THE SUBJECT SITE


Vegetation area(s) within 100m of the site whose classification has been influenced by the existence of bushfire prone vegetation from 100m – 200m from the site:	None
Assessment Statement:	No vegetation types exist close enough, or to a sufficient extent, within the relevant area to influence classification of vegetation within 100 metres of the subject site.

VEGETATION AREA 1							
Classification	N/A						
Types Identified	N/A						
Exclusion Clause	2.2.3.2 (e) Non-vegetated areas and (f) Low threat vegetation - high moisture content.						
Effective Slope	Measured	N/A		Applied Range (Method 1)	N/A		
Foliage Cover (all layers)	N/A		Shrub/Heath Height	N/A		Tree Height	N/A
Description/Justification:	<p>An established commercial area. Managed street frontages and median strips/road verges. Grasses slashed and maintained to less than 50mm. Footpaths/hardstand areas cleared of unmanaged vegetation.</p> <p>Note: Some sparse grasses conducive to winter growth present. This will not support a running fire.</p> <p>Note: Area 3 can be seen in the background of Photo ID: 3.</p>						
Post Development Assumptions:	Not Applicable.						
							
PHOTO ID: 1			PHOTO ID: 2				
							
PHOTO ID: 3							

VEGETATION AREA 2				
Classification	<b>C. SHRUBLAND</b>			
Types Identified	Open heath C-11		Tall shrubland E-15	
Exclusion Clause	N/A			
Effective Slope	Measured	flat 0 degrees	Applied Range (Method 1)	Upslope or flat 0 degrees
Description/Justification:	Shrub dominant area - Unmanaged shrub averaging less than 2 metres in height. Mixed species composition. Unmanaged grasses present also.			
Post Development Assumptions:	<p>It is anticipated that sections of Area 2 within the boundaries of the subject site (Stage 1) and Balance Lot 99 will have some form of modification as a result of Asset Protection Zone (APZ) Implementation.</p> <p>Note – Balance Lot 99 (outside of the subject site – Stage 1) is anticipated to be further subdivided in stages in the future and will remain under the control of the current landowner. It is assumed for the purposes of assessment that Asset Protection Zones can extend beyond the boundaries of Stage 1 as mentioned above for the purposes of reducing the bushfire threat and ensuring compliance with the Acceptable Solutions as detailed in Elements one and two of the Bushfire Protection Criteria. Refer to Figures 3.1b and 3.2a.</p> <p>Note – The removal or modification to native vegetation is subject to Local Government Authority Approvals.</p>			
				
PHOTO ID: 4		PHOTO ID: 5		
				
PHOTO ID: 6				

VEGETATION AREA 3				
Classification	<b>D. SCRUB</b>			
Types Identified	Closed scrub D-13	Open scrub D-14	Tall shrubland E-15	
Exclusion Clause	N/A			
Effective Slope	Measured	flat 0 degrees	Applied Range (Method 1)	Upslope or flat 0 degrees
Description/Justification:	Scrub dominant area - Unmanaged shrub averaging greater than 2 metres in height. Mixed species composition. Unmanaged grasses present also.			
Post Development Assumptions:	<p>It is anticipated that sections of Area 3 within the boundaries of the subject site (Stage 1) and Balance Lot 99 will have some form of modification as a result of Asset Protection Zone (APZ) Implementation.</p> <p>Note – Balance Lot 99 (outside of the subject site – Stage 1) is anticipated to be further subdivided in stages in the future and will remain under the control of the current landowner. It is assumed for the purposes of assessment that Asset Protection Zones can extend beyond the boundaries of Stage 1 as mentioned above for the purposes of reducing the bushfire threat and ensuring compliance with the Acceptable Solutions as detailed in Elements one and two of the Bushfire Protection Criteria. Refer to Figures 3.1b and 3.2a.</p> <p>Note – The removal or modification to native vegetation is subject to Local Government Authority Approvals.</p>			
				
PHOTO ID: 7		PHOTO ID: 8		
				
PHOTO ID: 9		PHOTO ID: 10		



VEGETATION AREA 3				
Classification	<b>D. SCRUB</b>			
Types Identified	Closed scrub D-13	Open scrub D-14	Tall shrubland E-15	
Exclusion Clause	N/A			
Effective Slope	Measured	flat 0 degrees	Applied Range (Method 1)	Upslope or flat 0 degrees
Description/Justification:	Scrub dominant area - Unmanaged shrub averaging greater than 2 metres in height. Mixed species composition. Unmanaged grasses present also.			
Post Development Assumptions:	As Above. Note – Area 1 can be seen in the foreground of Photo ID: 11			
				
PHOTO ID: 11				

VEGETATION AREA 4											
Classification	<b>A. FOREST</b>										
Types Identified	Open forest A-03		Low open forest A-04			Tall shrubland E-15					
Exclusion Clause	N/A										
Effective Slope	Measured	flat 0 degrees		Applied Range (Method 1)		Upslope or flat 0 degrees					
Foliage Cover (all layers)	30-70%		Shrub/Heath Height		>2m		Tree Height		Up to 15m		
Description/Justification:	Mixed species of trees present inclusive of Eucalypts. Understorey consists of unmanaged grasses, low shrub and low trees in some sections. Other sections have minimal understorey. Occasional open areas between canopies.										
Post Development Assumptions:	Not Applicable										
											
PHOTO ID: 12						PHOTO ID: 13					
											
PHOTO ID: 14											

### A1.3: EFFECTIVE SLOPE

#### Measuring

Effective slope refers to the slope “under the classified vegetation which most significantly influences bushfire behaviour (AS 3959:2018, clause B4, CB4). It is not the average slope.

It is described as upslope, flat or downslope when viewed from the exposed element (e.g., building) looking towards the vegetation – and measured in degrees. Ground slope has a direct and significant influence on a bushfire’s rate of spread and intensity, which increases when travelling up a slope.

The slope under the vegetation in closest proximity to the exposed element(s), over the distance that will most likely carry the entire depth of the flaming front, will be a significant consideration in the determination of the effective slope. This distance is determined as a function of the potential quasi-steady rate of spread and expected residence time (i.e., the flaming combustion period at a single point on the ground), of a bushfire in the specific vegetation type/landscape scenario.

#### Slope Variation Within Areas of Vegetation

Where a significant variation in effective slope exists under a consistent vegetation type, these will be delineated as separate vegetation areas to account for the difference in potential bushfire behaviour, in accordance with AS 3959:2018 clauses 2.2.5 and C2.2.5.

#### Slope Variation Due to Multiple Development Sites

When the effective slope, under a given area of bushfire prone vegetation, will vary significantly relative to multiple proposed development sites (exposed elements), then the effective slopes corresponding to each of the different locations, are separately identified.

The relevant (worst case) effective slope is determined in the direction corresponding to the potential directions of fire spread towards the subject building(s).

#### Differences in Application of Effective Slope - AS 3959:2018 Method 1 versus Method 2 Procedures

The Method 1 procedure provides five different slope ranges from flat (including all upslopes) to 20 degrees downslope to define the effective slope and bushfire behaviour model calculations apply the highest value in each range (i.e., 0°, 5°, 10°, 15° or 20°).

The Method 2 procedure requires an actual slope (up or down in degrees) to be determined. AS 3959:2018, clause B1 limits the effective slope that can be applied to 30 degrees downslope and 15 degrees upslope. Where any upslope is greater than 15 degrees, then 15 degrees is to be used.

### SITE ASSESSMENT DETAILS - EXPLANATION & JUSTIFICATION

The effective slopes determined from the site assessment are recorded in Table 3.1 of this Bushfire Management Plan. When their derivation requires additional explanation and justification, this is provided below.

## A1.4: SEPARATION DISTANCE

### Measuring

The separation distance is the distance in the horizontal plane between the receiver (building/structure or area of land being considered) and the edge of the classified vegetation (AS 3959:2018, clause 2.2.4)

The relevant parts of a building/structure from which the measurement is taken is the nearest part of an external wall or where a wall does not exist, the supporting posts or columns. Certain parts of buildings are excluded including eaves and roof overhangs.

The edge of the vegetation, for forests and woodlands, will be determined by the unmanaged understorey rather than either the canopy (drip line) or the trunk (AS 3959:2018, clause C2.2.5).

### Measured Separation Distance as a Calculation Input

If a separation distance can be measured because the location of the building/structure relative to the edge of the relevant classified vegetation is known, this figure can be entered into the BAL calculation. The result is a determined BAL rating.

### Assumed Separation Distance as a Calculation Input

When the building/structure location within the lot is not known, an assumed building location may be applied that would establish the closest positioning of the building/structure relative to the relevant area of vegetation.

The assumed location would be based on a factor that puts a restriction on a building location such as:

- An established setback from the boundary of a lot, such as a residential design code setback or a restrictive covenant; or
- Within an established building envelope.

The resultant BAL rating would be indicative and require later confirmation (via a Compliance Report) of the building/structure actual location relative to the vegetation to establish the determined BAL rating.

### Separation Distance as a Calculation Output

With the necessary site specific assessment inputs and using the AS 3959:2018 bushfire modelling equations, the range of separation distances that will correspond to each BAL rating (each of which represents a range of radiant heat flux), can be calculated. This has application for bushfire planning scenarios such as:

- When the separation distance cannot be measured because the exact location of the exposed element (i.e., the building, structure or area), relative to classified vegetation, is yet to be determined.

In this scenario, the required information is the identification of building locations onsite that will correspond to each BAL rating. That is, indicative BAL ratings can be derived for a variety of potential building/structure locations; or

- The separation distance is known for a given building, structure or area (and a determined BAL rating can be derived), but additional information is required regarding the exposure levels (to the transfer of radiant heat from a bushfire), of buildings or persons, that will exist at different points within the subject site.

The calculated range of separation distances corresponding to each BAL rating can be presented in a table and/or illustrated as a BAL Contour Map – whichever is determined to best fit the purpose of the assessment.

For additional information refer to the information boxes in Section 3 'Bushfire Attack Levels (BAL) - Understanding the Results and Section 3.2. 'Interpretation of the BAL Contour Map'.

## SITE ASSESSMENT DETAILS - EXPLANATION & JUSTIFICATION

For the subject development/use the applicable separation distances values are derived from calculations applying the assessed site data. They are an output value, not an input value and therefore are not presented or justified in this appendix.

The derived values are presented in Section 3, Table 3.2 and illustrated as a BAL contour map in Figure 3.2a.

## APPENDIX B: ONSITE VEGETATION MANAGEMENT - THE APZ

### THE ASSET PROTECTION ZONE (APZ) - DESCRIPTION

This is an area surrounding a habitable building containing either no fire fuels and/or low threat fire fuels that are managed in a minimal fuel condition. The primary objectives include:

- To ensure the building is sufficiently separated from the bushfire hazard to limit the impact of its direct attack mechanisms. That is, the dimensions of the APZ will, for most site scenarios, remove the potential for direct flame contact on the building, reduce the level of radiant heat to which the building is exposed and ensure some reduction in the level of ember attack (with the level of reduction being dependent on the vegetation types of present);
- To ensure any vegetation retained within the APZ presents low threat levels and prevents surface fire spreading to the building;
- To ensure other combustible materials that can result in consequential fire (typically ignited by embers) within both the APZ and parts of the building, are eliminated, minimised and/or appropriately located or protected. (Note: The explanatory notes in the Guidelines provide some guidance for achieving this objective and other sources are available. Research shows that consequential fire, ignited by embers, is the primary cause of building loss in past bushfire events); and
- To provide a defensible space for firefighting activities.

## B1: The Dimensions and Location of the APZ to be Established and Maintained

### UNDERSTANDING THE APZ PLANNING ASSESSMENT VERSUS ITS IMPLEMENTATION REQUIREMENTS

#### THE 'PLANNING BAL-29' APZ

*It is important to understand is that the 'Planning BAL-29' APZ is not necessarily the size of the APZ that must be physically established and maintained by a landowner. It is a screening tool for making planning approval decisions.*

The assessment against the Bushfire Protection Criteria is conducted for planning approval purposes. To satisfy acceptable solution 'A2.1: Asset Protection Zone', it must be demonstrated that certain minimum separation distances between the relevant building/structure and different classes of bushfire prone vegetation either exist or can be created and will remain in perpetuity.

The required minimum separation distances are those that will ensure the potential radiant heat impact on relevant existing or future buildings does not exceed 29 kW/m<sup>2</sup>. The area of land contained within these separation distances is described as an Asset Protection Zone (APZ) and is to be comprised of non-vegetated land or low threat vegetation managed in a minimal fuel condition.

The applicable minimum separation distances will vary dependent on the vegetation types, the slope of the land they are growing on and other relevant factors specific to the site and its use.

**The resulting 'Planning BAL-29' APZ dimensions may extend outside subject lot boundaries.**

It is the purpose of the bushfire consultant's 'Supporting Assessment Detail', that is presented in the assessment against the acceptable solution A2.1, that will identify and justify how any offsite land within the 'Planning BAL-29 APZ (which the subject landowner has no authority or responsibility to manage), will meet the requirements of being either non-vegetated land or low threat vegetation managed in a minimal fuel condition and likely to remain in this state in perpetuity. Or otherwise, explain how this condition cannot be met.

*It is the 'Planning BAL-29' APZ dimensions that will be stated in relevant tables and shown on maps as necessary in this BMP. The exceptions are the tables that are included within this appendix - when relevant to the subject lot(s) - which will present 'BAL Rating' and 'Landowner' APZ dimensions.*

### THE 'BAL RATING' APZ

The 'BAL Rating' APZ will ensure that the potential radiant heat exposure of the building/structure will be limited to the level that the applied construction requirements, (i.e., those corresponding to the building/structure's determined BAL rating), are designed to resist.

The minimum dimensions of the 'BAL Rating' APZ to be established and maintained will be those that correspond to the determined BAL rating for the specific building/structure. They will account for the specific conditions on and surrounding the subject lot.

*The required dimensions of the 'BAL Rating' APZ establish the size of the APZ that must physically exist either entirely within a subject lot or in combination with an area of adjoining land.*

*If in combination with adjoining (offsite) land, it must be justified how the offsite land can most reasonably be expected to either remain unvegetated or be able to meet and maintain the APZ Standards in perpetuity, without any actions by the owner of the subject lot.*

The applicable determined BAL rating will have been stated in the relevant assessment section of this BMP when it can be assessed as a 'determined' rather than 'indicative' rating. Otherwise, it will be shown on the BAL Certificate that is submitted as part of a building application.

### THE 'LANDOWNER' APZ

**Dimensions:** The 'Landowner' APZ is to be established and maintained by the owner of the subject lot. The minimum dimensions are the 'BAL Rating' APZ dimensions except that they will be limited to the distance that they can be established within the subject lot. (Note: Any removal of native vegetation may require the approval of the relevant authority.)

The remaining required separation distance outside the lot has been assessed by the bushfire consultant to be most likely to remain in a low threat state in perpetuity without any actions to be taken by the owner of the subject lot.

These minimum 'within the lot' APZ dimensions will only be greater when the relevant local government's annual firebreak / hazard reduction notice (issued under s33 of the Bushfires Act 1954), specifies the APZ dimensions to be applied within the lot and they are greater. Consequently, the 'Landowner' APZ dimensions can be a combination of the 'BAL Rating' Dimensions and the Local Government requirements. Check their annual notice for revisions to these requirements.

*The dimensions of the 'Landowner' APZ establish the size of the APZ that must be established and maintained by the landowner within the subject lot.*

**Location:** The 'Landowner' APZ for which the landowner has the responsibility to establish and maintain, is that which will exist entirely within the boundaries of the relevant lot, unless an approved formal and enforceable agreement allows them to manage a specified area of land external to the subject lot.

In most cases the landowner will only have authority and responsibility to establish and manage the APZ within the subject lot.

Otherwise, when there is a remaining part of the 'BAL Rating' APZ existing outside the subject lot, then these areas of land will, in most situations, include non-vegetated areas (e.g., roads / parking / drainage / water body), formally managed areas of vegetation (e.g., public open space / recreation areas / services installed in a common section of land) or an APZ on a neighbouring lot that is required to be established and maintained by the owner of that adjoining lot.

*For vulnerable land uses, the 'BAL Rating' APZ and 'Landowner' APZ will also refer to the dimensions corresponding to radiant heat impact levels of 10 kW/m<sup>2</sup> and 2 kW/m<sup>2</sup> (calculated using 1200K flame temperature).*

*For development applications only, the 'Landowner' APZ dimensions are also shown on the Property Bushfire Management Statement in Section 6.3.1 of this BMP when it is a required component of the Bushfire Management Plan.*

Table B1.1: The applicable 'Landowner' APZ Dimensions when indicative BAL ratings have been established by the BMP.

THE 'LANDOWNER' APZ DIMENSIONS TO BE ESTABLISHED AND MAINTAINED							
Relevant Buildings(s)	Classified Vegetation  Refer to Fig 3.1	Minimum Required Separation Distances (m) - Building to Vegetation					
		The 'BAL Rating' APZ				As Directed by the Applicable Local Government Firebreak / Hazard Reduction Notice	The 'Landowner' APZ  (limited to the subject lot boundary unless otherwise justified)
		Corresponding to the Stated 'Indicative' BAL					
		BAL-29	BAL-19	BAL-12.5	BAL-LOW		
All Proposed Allotments	Area 1	N/A	N/A	N/A	N/A	N/A	
	Area 2	9	13	19	100	N/A	
	Area 3	13	19	27	100	N/A	
	Area 4	21	31	42	100	N/A	
<p><b>Comments:</b> Proposed Lots 1-3 &amp; 7-8 - The lot size will provide sufficient area to accommodate a building and the establishment of an APZ to ensure a maximum BAL rating of BAL-29 will apply to that building, thus achieving the Acceptable Solutions Established by the Guidelines for Planning in Bushfire Prone Areas.</p>							

## B2: The Standards for the APZ as Established by the Guidelines (DPLH, v1.4)

Within the Guidelines (source: <https://www.wa.gov.au/government/document-collections/state-planning-policy-37-planning-bushfire-prone-areas>), the management Standards are established by:

- Schedule 1: Standards for Asset Protection Zones (see extract below) established by the Guidelines; and
- The associated explanatory notes (Guidelines E2) that address (a) managing an asset protection zone (APZ) to a low threat state (b) landscaping and design of an asset protection zone and (c) plant flammability.

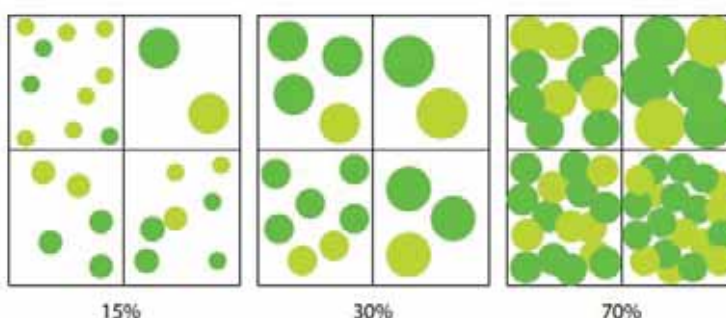


### ELEMENT 2: SITING AND DESIGN OF DEVELOPMENT

#### 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>

Figure 19: Tree canopy cover – ranging from 15 to 70 per cent at maturity





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>
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

### B3: The Standards for the APZ as Established by the Local Government

Refer to the firebreak / hazard reduction notice issued annually (under s33 of the Bushfires Act 1954) by the relevant local government. It may state Standards that vary from those established by the Guidelines and that have been endorsed by the WAPC and DFES as per Section 4.5.3 of the Guidelines.

A copy of the applicable notice is not included here as they are subject to being reviewed and modified prior to issuing each year. Refer to ratepayers notices and/or the local government's website for the current version.

## B4: Maintaining Low Threat and Non-Vegetated Areas Excluded from Classification

AS 3959 establishes the methodology for determining a bushfire attack level (BAL). The methodology includes the classification of the subject site's surrounding vegetation according to their 'type' and the application of the corresponding bushfire behaviour models to determine the BAL. Certain vegetation can be considered as low threat and excluded from classification. Where this has occurred in assessing the site, the extract from AS3959:2018 below state the requirements (including the size of the vegetation area if relevant to the assessment) for maintenance of those areas of land.

15	AS 3959:2018
<p><b>2.2.3.2 Exclusions—Low threat vegetation and non-vegetated areas</b></p> <p>The following vegetation shall be excluded from a BAL assessment:</p> <ul style="list-style-type: none"> <li>(a) Vegetation of any type that is more than 100 m from the site.</li> <li>(b) Single areas of vegetation less than 1 ha in area and not within 100 m of other areas of vegetation being classified vegetation.</li> <li>(c) Multiple areas of vegetation less than 0.25 ha in area and not within 20 m of the site, or each other or of other areas of vegetation being classified vegetation.</li> <li>(d) Strips of vegetation less than 20 m in width (measured perpendicular to the elevation exposed to the strip of vegetation) regardless of length and not within 20 m of the site or each other, or other areas of vegetation being classified vegetation.</li> <li>(e) Non-vegetated areas, that is, areas permanently cleared of vegetation, including waterways, exposed beaches, roads, footpaths, buildings and rocky outcrops.</li> <li>(f) Vegetation regarded as low threat due to factors such as flammability, moisture content or fuel load. This includes grassland managed in a minimal fuel condition, mangroves and other saline wetlands, maintained lawns, golf courses (such as playing areas and fairways), maintained public reserves and parklands, sporting fields, vineyards, orchards, banana plantations, market gardens (and other non-curing crops), cultivated gardens, commercial nurseries, nature strips and windbreaks.</li> </ul> <p>NOTES:</p> <ul style="list-style-type: none"> <li>1 Minimal fuel condition means there is insufficient fuel available to significantly increase the severity of the bushfire attack (recognizable as short-cropped grass for example, to a nominal height of 100 mm).</li> <li>2 A windbreak is considered a single row of trees used as a screen or to reduce the effect of wind on the leeward side of the trees.</li> </ul>	

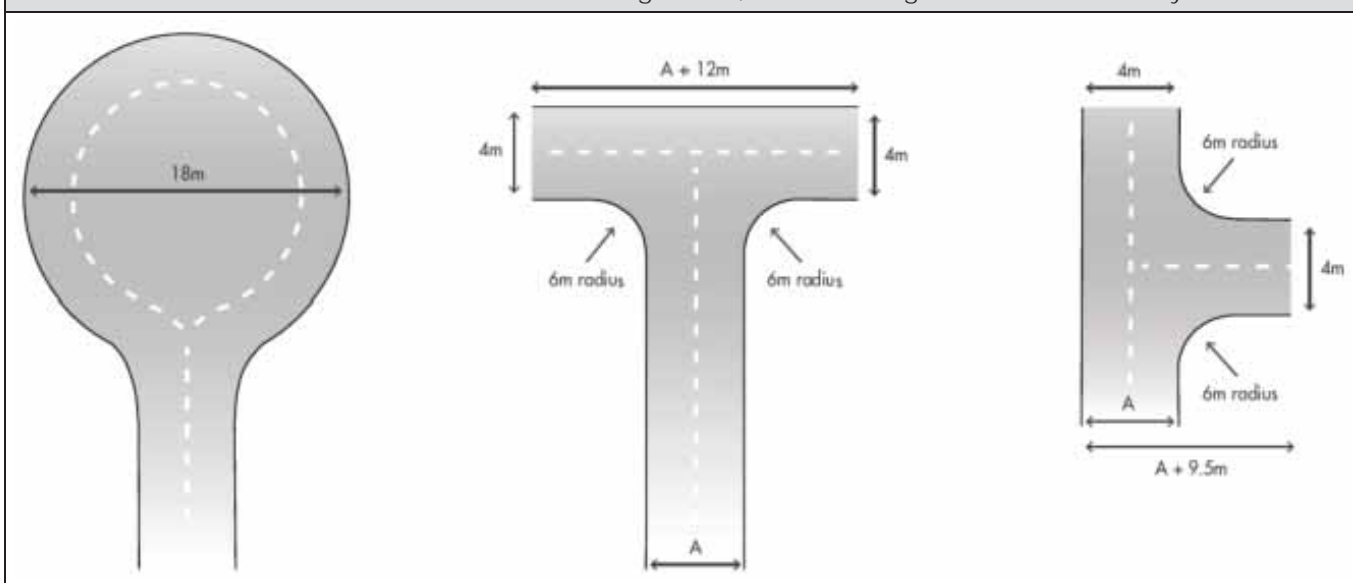
## APPENDIX C: TECHNICAL REQUIREMENTS FOR VEHICULAR ACCESS

The design/layout requirements for access are established by the acceptable solutions of the Guidelines (DPLH, 2021 v1.4) Element 3 and vary dependent on the access component, the land use and the presence of 'vulnerable' persons. Consequently, the best reference source are the Guidelines. The technical requirements that are fixed for all components and uses are presented in this appendix.

**GUIDELINES TABLE 6, EXPLANATORY NOTES E3.3 & E3.6 AND RELEVANT ACCEPTABLE SOLUTIONS**

Technical Component	Vehicular Access Types / Components			
	Public Roads	Emergency Access Way <sup>1</sup>	Fire Service Access Route <sup>1</sup>	Battle-axe and Private Driveways <sup>2</sup>
Minimum trafficable surface (m)	In accordance with A3.1	6	6	4
Minimum Horizontal clearance (m)	N/A	6	6	6
Minimum Vertical clearance (m)	4.5			
Minimum weight capacity (t)	15			
Maximum Grade Unsealed Road <sup>3</sup>	As outlined in the IPWEA Subdivision Guidelines	1:10 (10%)		
Maximum Grade Sealed Road <sup>3</sup>		1:7 (14.3%)		
Maximum Average Grade Sealed Road		1:10 (10%)		
Minimum Inner Radius of Road Curves (m)		8.5		

**Turnaround Area Dimensions for No-through Road, Battle-axe Legs and Private Driveways <sup>4</sup>**



**Passing Bay Requirements for Battle-axe leg and Private Driveway**

When the access component length is greater than the stated maximum, passing bays are required every 200m with a minimum length of 20m and a minimum additional trafficable width of 2m (i.e. the combined trafficable width of the passing bay and constructed private driveway to be a minimum 6m).

**Emergency Access Way – Additional Requirements**

Provide a through connection to a public road, be no more than 500m in length, must be signposted and if gated, gates must be open the whole trafficable width and remain unlocked.

<sup>1</sup> To have crossfalls between 3 and 6%.

<sup>2</sup> Where driveways and battle-axe legs are not required to comply with the widths in A3.5 or A3.6, they are to comply with the Residential Design Codes and Development Control Policy 2.2 Residential Subdivision.

<sup>3</sup> Dips must have no more than a 1 in 8 (12.5% or 7.1 degree) entry and exit angle.

<sup>4</sup> The turnaround area should be within 30m of the main habitable building.

## APPENDIX D: TECHNICAL REQUIREMENTS FOR FIREFIGHTING WATER SUPPLY

### D1: Reticulated Areas – Hydrant Supply

The Guidelines state “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.”

The main scheme water suppliers / authorities in WA are The Water Corporation, AqWest – Bunbury Water Corporation and Busselton Water Corporation. Various local authority exists in other non-scheme and regional areas. However, most existing fire hydrants are connected to Water Corporation water mains.

Consequently, the hydrant location specifications from The Water Corporation’s ‘No 63 Water Reticulation Standard’ (Ver 3 Rev 15) are provided in the extract below with the key distances relevant to bushfire planning assessments being highlighted. This Standard is deemed to be the baseline criteria for developments and should be applied unless different local water supply authority conditions apply. Other applicable specification will be found in the Standard.

*Note: The maximum distance from a hydrant to the rear of a lot/building is generally interpreted as not applicable to large lot sizes where the maximum distance becomes an impractical limitation i.e., typically rural residential areas.*

Design Standard DS 63  
Water Reticulation Standard



#### 2.2.1.5 Appurtenances

##### c. Hydrants

Hydrants shall be screw-down hydrant with built-in isolation valve and installed only on DN100 or larger pipes. Hydrants shall be located:

- so that the maximum distance between a hydrant and the rear of a building envelope, (or in the absence of a building envelope the rear of the lot) shall be 120m;
- so that spacing (as measured by hose-run) between hydrants in non-residential or mixed use areas shall be maximized and no greater than 100m;
- so that spacing (as measured by hose-run) between hydrants in residential areas with lots per dwelling <10,000m<sup>2</sup> shall be maximized and no greater than 200m;
- so that spacing between hydrants (as measured by hose-run) in rural residential areas where minimum lots per dwelling is >10,000 m<sup>2</sup> (1ha) shall be maximized and no greater than 400m;
- centrally along the frontage of a lot to avoid being under driveways, unless the lot features a frontage 6m or less, in which case it shall be placed to the side opposite the driveway;
- at lots that have the widest frontage in the local area;
- where appropriate at the truncation of road junctions or intersections so that they can serve more than one street and can be readily located;
- on both sides of the major roads at staggered intervals where there are mains on both sides of the road;
- at major intersections on dual multi-lane roads, where two hydrants are to be sited on diagonally opposite corners;
- hydrants should be located at least 20m from traffic calming devices i.e., median slow points or chokers, chicanes, mini traffic circles, and intersection ‘pop-outs’ to ensure traffic is not impeded;
- in a position not less than 10m from any high voltage main electrical distribution equipment such as transformers and distribution boards, liquefied petroleum gas or other combustible storage;
- directly on top of the main using a tee unless proved to be impractical.

# Attachment 5

Subdivision Approval WAPC Ref: 153314



Your Ref :  
Enquiries : Rowena Rodrigues (Ph 6551 9358)

Whelans Australia Pty Ltd  
Suite 4, First Floor,  
40 Hasler Road  
OSBORNE PARK WA 6017

### Approval Subject To Condition(s) Freehold (Green Title) Subdivision

**Application No : 153314**

***Planning and Development Act 2005***

Applicant	: Whelans Australia Pty Ltd Suite 4, First Floor, 40 Hasler Road OSBORNE PARK WA 6017
Owner	: The State Of Western Australia Po Box 1143, WEST PERTH WA 6872
Application Receipt	: 26 February 2016

Lot Number	: 99
Diagram / Plan	: Deposited Plan 69929
Location	: -
C/T Volume/Folio	: Lr3162/110
Street Address	: Railway Parade, Dalwallinu
Local Government	: Shire of Dalwallinu

The Western Australian Planning Commission has considered the application referred to and is prepared to endorse a deposited plan in accordance with the plan date-stamped **26 February 2016** once the condition(s) set out have been fulfilled.

This decision is valid for **four years** from the date of this advice, which includes the lodgement of the deposited plan within this period.

The deposited plan for this approval and all required written advice confirming that the requirement(s) outlined in the condition(s) have been fulfilled must be submitted by **10 May 2020** or this approval no longer will remain valid.

### **Reconsideration - 28 days**

Under section 151(1) of the *Planning and Development Act 2005*, the applicant/owner may, within 28 days from the date of this decision, make a written request to the WAPC to reconsider any condition(s) imposed in its decision. One of the matters to which the WAPC will have regard in reconsideration of its decision is whether there is compelling evidence by way of additional information or justification from the applicant/owner to warrant a reconsideration of the decision. A request for reconsideration is to be submitted to the WAPC on a Form 3A with appropriate fees. An application for reconsideration may be submitted to the WAPC prior to submission of an application for review. Form 3A and a schedule of fees are available on the WAPC website: <http://www.planning.wa.gov.au>

### **Right to apply for a review - 28 days**

Should the applicant/owner be aggrieved by this decision, there is a right to apply for a review under Part 14 of the *Planning and Development Act 2005*. The application for review must be submitted in accordance with part 2 of the *State Administrative Tribunal Rules 2004* and should be lodged within 28 days of the date of this decision to: the State Administrative Tribunal, Level 6, State Administrative Tribunal Building, 565 Hay Street, PERTH, WA 6000. It is recommended that you contact the tribunal for further details: telephone 9219 3111 or go to its website: <http://www.sat.justice.wa.gov.au>

### **Deposited plan**

The deposited plan is to be submitted to the Western Australian Land Information Authority (Landgate) for certification. Once certified, Landgate will forward it to the WAPC. In addition, the applicant/owner is responsible for submission of a Form 1C with appropriate fees to the WAPC requesting endorsement of the deposited plan. A copy of the deposited plan with confirmation of submission to Landgate is to be submitted with all required written advice confirming compliance with any condition(s) from the nominated agency/authority or local government. Form 1C and a schedule of fees are available on the WAPC website: <http://www.planning.wa.gov.au>

### **Condition(s)**

The WAPC is prepared to endorse a deposited plan in accordance with the plan submitted once the condition(s) set out have been fulfilled.

The condition(s) of this approval are to be fulfilled to the satisfaction of the WAPC.

The condition(s) must be fulfilled before submission of a copy of the deposited plan for endorsement.

The agency/authority or local government noted in brackets at the end of the condition(s) identify the body responsible for providing written advice confirming that the WAPC's requirement(s) outlined in the condition(s) have been fulfilled. The written advice of the agency/authority or local government is to be obtained by the applicant/owner. When the written advice of each identified agency/authority or local government has been obtained, it should be submitted to the WAPC with a Form 1C and appropriate fees and a copy of the deposited plan.

If there is no agency/authority or local government noted in brackets at the end of the condition(s), a written request for confirmation that the requirement(s) outlined in the condition(s) have been fulfilled should be submitted to the WAPC, prior to lodgement of the deposited plan for endorsement.

Prior to the commencement of any subdivision works or the implementation of any condition(s) in any other way, the applicant/owner is to liaise with the nominated agency/authority or local government on the requirement(s) it considers necessary to fulfil the condition(s).

The applicant/owner is to make reasonable enquiry to the nominated agency/authority or local government to obtain confirmation that the requirement(s) of the condition(s) have been fulfilled. This may include the provision of supplementary information. In the event that the nominated agency/authority or local government will not provide its written confirmation following reasonable enquiry, the applicant/owner then may approach the WAPC for confirmation that the condition(s) have been fulfilled.

In approaching the WAPC, the applicant/owner is to provide all necessary information, including proof of reasonable enquiry to the nominated agency/authority or local government.

The condition(s) of this approval, with accompanying advice, are:

CONDITIONS:

1. Arrangements being made to the satisfaction of the Western Australian Planning Commission and to the specification of Western Power for the provision of an underground electricity supply to the lot(s) shown on the approved plan of subdivision. (Western Power)
2. The transfer of land as a Crown reserve free of cost to Western Power for the provision of electricity supply infrastructure. (Western Power)
3. Engineering drawings and specifications are to be submitted, approved, and subdivisional works undertaken in accordance with the approved plan of subdivision, engineering drawings and specifications, to ensure that those lots not fronting an existing road are provided with frontage to a constructed road(s) connected by a constructed road(s) to the local road system and such road(s) are constructed and drained at the landowner/applicant's cost.

As an alternative, and subject to the agreement of the Local Government the Western Australian Planning Commission (WAPC) is prepared to accept the landowner/applicant paying to the local government the cost of such road works as estimated by the local government and the local government providing formal assurance to the WAPC confirming that the works will be completed within a reasonable period as agreed by the WAPC.  
(Local Government)



4. Prior to the commencement of subdivisional works, the landowner/applicant is to provide a pre-works geotechnical report certifying that the land is physically capable of development or advising how the land is to be remediated and compacted to ensure it is capable of development.

In the event that remediation works are required, the landowner/applicant is to provide a post geotechnical report certifying that all subdivisional works have been carried out in accordance with the pre-works geotechnical report.  
(Local Government)

5. The land being filled, stabilised, drained and/or graded as required to ensure that
  - a) lots can accommodate their intended development;
  - b) finished ground levels at the boundaries of the lot(s) the subject of this approval match or otherwise coordinate with the existing and/or proposed finished ground levels of the land abutting; and
  - c) stormwater is contained on-site, or appropriately treated and connected to the local drainage system.

(Local Government)

6. Suitable arrangements being made with the local government for the provision of vehicular crossover(s) to service the lot(s) shown on the approved plan of subdivision. (Local Government)
7. Arrangements being made with the Water Corporation so that provision of a suitable water supply service will be available to the lots shown on the approved plan of subdivision. (Water Corporation)
8. A notification, pursuant to Section 70A of the *Transfer of Land Act 1893* is to be placed on the certificate(s) of title of the proposed lot(s). Notice of this notification is to be included on the diagram or plan of survey (deposited plan). The notification is to state as follows:

*'A reticulated sewerage service is not available to the lot/s.'*

(Local Government)

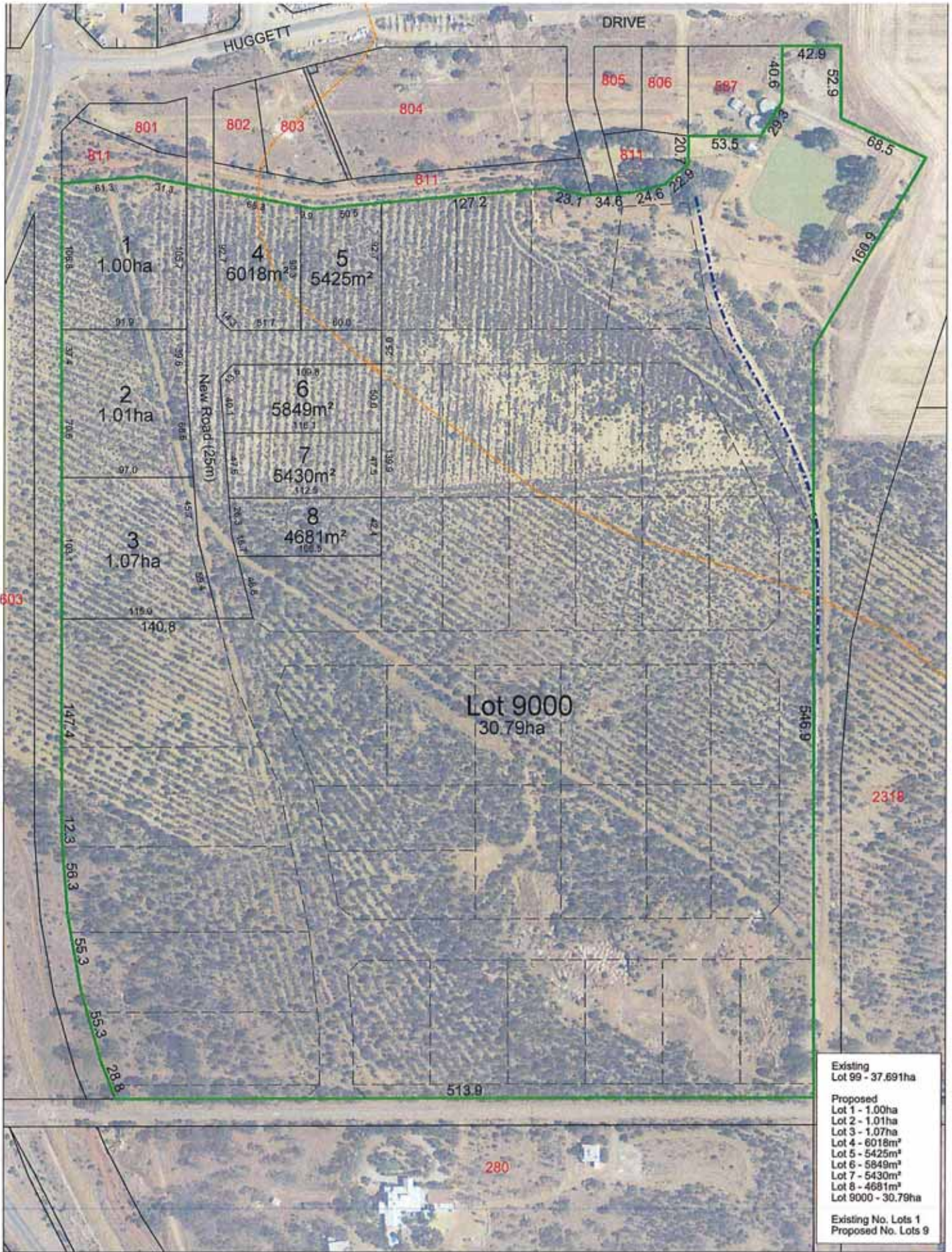
#### ADVICE:

1. In regard to Condition 1, Western Power provides only one underground point of electricity supply per freehold lot.
2. In regard to Condition 3, the landowner/applicant is advised that the road reserves, including the constructed carriageways, laneways, truncations, footpaths/dual use paths and car embayments, are to be generally consistent with the approved plan of subdivision.

3. With regards to Condition 4, the Department of Health (DoH) advises that the geotechnical report should address the following:
- soil profile to a depth of at least 2 metres;
  - soil permeability;
  - water table encountered to a depth of 2 metres;
  - site topography and any other features such as rock outcrops, water courses, drains and exclusions zones;
  - proposed building envelopes and sufficient location for an effluent disposal area, with required setbacks to boundaries and any water courses.
4. In regard to Condition 7, the landowner/applicant shall make arrangements with the Water Corporation for the provision of the necessary services. On receipt of a request from the landowner/applicant, a Land Development Agreement under Section 83 of the *Water Services Act 2012* will be prepared by the Water Corporation to document the specific requirements for the proposed subdivision.



Kerrine Blenkinsop  
Secretary  
Western Australian Planning Commission  
10 May 2016



Existing  
Lot 99 - 37.691ha

Proposed  
Lot 1 - 1.00ha  
Lot 2 - 1.01ha  
Lot 3 - 1.07ha  
Lot 4 - 6018m<sup>2</sup>  
Lot 5 - 5425m<sup>2</sup>  
Lot 6 - 5849m<sup>2</sup>  
Lot 7 - 5430m<sup>2</sup>  
Lot 8 - 4681m<sup>2</sup>  
Lot 9000 - 30.79ha

Existing No. Lots 1  
Proposed No. Lots 9

Plan No.: 20721-5  
Revision: REV.0  
Scale: 1:2500@A3

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Scale 4 First Floor 48 Boulder Road Osborne Park WA 6017 www.wheelans.com.au

LEGEND	
	Contours
	Proposed Boundary
	Application Area

DEPARTMENT OF PLANNING	
DATE	FILE
26/02/2016	353314

**PROPOSED SUBDIVISION  
LIGHT INDUSTRIAL AREA RAILWAY PARADE  
DALWALLINU**

DATE: 11/09/2015 FILE: 1022 Subdivision Huggett Drive & proposed Subdivision  
DRAWN: CM/EP VSA/SL/AB  
CHECKED BY: GC WDM/SGH/SL



# Attachment 6

Servicing and Geotechnical Investigation Reports

Report on  
Geotechnical Investigation

Proposed Industrial Subdivision  
Part Lot UCL 586 Huggett Drive  
Dalwallinu, WA

Prepared for  
Porter Consulting Engineers

Project 76132.00  
March 2011

Integrated Practical Solutions





# Douglas Partners

Geotechnics | Environment | Groundwater

## Document History

### Document details

Project No.	76132.00	Document No.	1
Document title	Geotechnical Investigation for Proposed Industrial Subdivision		
Site address	Part Lot UCL 586 Huggett Drive, Dalwallinu, WA		
Report prepared for	Porter Consulting Engineers		
File name	P:\76132 Dalwallinu & Morawa Industrial Area\Docs\76132.00 Geotechnical Report, Dalwallinu.doc		

### Document status and review

Revision	Prepared by	Reviewed by	Date issued
0	Sunthar Seenu	David Qualischefski	16 March 2011

### Distribution of copies

Revision	Electronic	Paper	Issued to
0	1	1	Porter Consulting Engineers

The undersigned, on behalf of Douglas Partners Pty Ltd, confirm that this document and all attached drawings, logs and test results have been checked and reviewed for errors, omissions and inaccuracies.

	Signature	Date
Author		18 March 2011
Reviewer		18 March 2011



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Appendix A: Notes Relating to this Report

Appendix B: Site Plan and Test Locations

Appendix C: Results of Field Work

Appendix D: Geotechnical Laboratory Testing Results

## **Report on Geotechnical Investigation**

### **Proposed Industrial Subdivision**

### **Part Lot UCL 586 Huggett Drive Dalwallinu, WA**

---

#### **1. Introduction**

This report presents the results of a geotechnical investigation undertaken for a proposed industrial subdivision within a part of Lot UCL 586 Huggett Drive in Dalwallinu, WA. The investigation was commissioned by Porter Consulting Engineers on 11 January 2011 and was undertaken in accordance with Douglas Partners' proposal dated 30 November 2010.

The aim of the investigation was to assess the subsurface soil and groundwater conditions across the site in order to provide:

- an assessment of the geotechnical suitability of the site for the proposed development;
- an appropriate site classification in accordance with the requirements of AS 2870-2011;
- recommendations on site preparation and earthworks;
- an appropriate foundation system for the proposed development, including an assessment of allowable bearing pressures and likely settlements;
- comment on the suitability of the site for on site stormwater disposal using soakwells; this includes the assessment of the permeability of the soils for drainage design; and
- comments on the suitability of soils encountered during investigation for acceptance of domestic on-site effluent disposal.

The investigation comprised the excavation of ten test pits followed by Dynamic Cone Penetrometer (DCP) testing carried out adjacent to the test pits, one in-situ permeability test and laboratory testing on selected samples. The details of the field work are presented in this report, together with comments and recommendations on the issues listed above.

A previous geotechnical investigation was undertaken at this site by GHD Pty Ltd and their report titled "Dalwallinu Proposed Light Industrial Area (Site A) Geotechnical Investigation" dated August 2008 was partially made available to DP. So, rigorous review could not be undertaken.

#### **2. Site Description**

The site is approximately 2.5 ha in area and identified as a part of Lot UCL 586 Huggett Drive in Dalwallinu, WA. The site is bounded by Huggett Road to the north, local shire pumping station to the east, rural properties to the south and a road reserve (Railway Parade) to the west. Commercial and industrial properties were located on the northern side of the Huggett Drive.



At time of investigation, the site was covered with sparse dry grasses and a few scattered trees ranging between medium to large in sizes. Topographically, the site was nearly level with minor undulations associated with the clearing of the site and excavations for the installation of underground services.

A survey plan prepared by Brook Marsh Pty Ltd indicates that surface levels range from approximately RL 326 m AHD up to RL 331 m AHD from east to west direction.

The Western Australia Geological map for Moora, Sheet SH 50 – 10, 1:250 000 indicates that shallow sub surface conditions beneath the site comprise colluvium.

### 3. Field Work Methods

Field work was carried out on 14 January 2011 and comprised:

- the excavation of ten test pits (TP1 to TP10) to a maximum depth of 2.5 m using a 22 tonne Samsung EX 30 excavator equipped with a 750 mm wide rock toothed bucket;
- collection of representative soil samples from the test pits for subsequent laboratory analysis of geotechnical parameters;
- logging of the test pits, in general accordance with test procedure in AS 1726 – 1993, by a suitably experienced representative from Douglas Partners;
- Pocket Penetrometer testing and dynamic penetration testing, in accordance with AS 1289.6.3.2, at each test location to assess the in situ condition of the shallow ground; and
- one field permeability test using the constant head method, carried out at a depth of 0.5 m near TP6.

Test sites were located using existing features and are indicated on Drawing 1 in Appendix A. The surface elevation at each test location was interpolated from a survey plan provided by the client and is quoted in m AHD.

### 4. Field Work Results

#### 4.1 Ground Conditions

Detailed logs of ground conditions at each test location and results of field testing are presented in Appendix B, together with notes defining descriptive terms and classification methods used.

Ground conditions encountered beneath the site generally comprised topsoil overlying sandy clay with varying amounts of fine to medium sized gravel in turn overlying sandstone.

- **Topsoil** – red brown silty sandy clay topsoil was encountered in test pits TP6 and TP8 to TP10 to depths between 0.1 m and 0.3 m;

- **Sandy clay** – stiff to very stiff, red brown and red brown mottled pale grey, high plasticity sandy clay was encountered to depths ranging from 1.7 m to 2.5 m;
- **Sandstone** – low to medium strength, moderately weathered orange brown to red brown mottled white, fine to medium grained sandstone was encountered in test pits TP5, TP6, TP9 and TP10 underlying sandy clay to the full depth of investigation. These test pits were discontinued at depths ranging from 1.8 m to 2.2 m due to refusal.

## 4.2 Groundwater

No free groundwater was observed within any of the test pits excavated on 14 January 2011 to depths of up to 2.5 m below surface level. The test pits were backfilled following the investigation which precluded prolonged monitoring of groundwater levels.

## 4.3 In Situ Permeability Testing

An in-situ permeability test using the constant head method was carried out in a 0.5 m deep hand augered borehole drilled at the vicinity of TP2. A field permeability value was estimated, using the permeability test data. The results of the permeability analysis are summarised in Table 1.

**Table 1: Summary of the In-Situ Permeability Testing**

Pit	Depth (m)	Test Method	Derived Permeability		Material
			(m/s)	(m/day)	
TP2	0.5	In situ constant head	$5.9 \times 10^{-8}$	0.005	Sandy clay with trace gravel

## 5. Laboratory Testing

A laboratory testing programme was carried out on selected soil samples by a NATA registered laboratory and comprised the following;

- the particle size distribution for the soil classification; and
- the Atterberg limits and linear shrinkage to assess the plasticity of the soils;
- the shrink-swell index to determine the surface movement ( $\gamma_s$ ) with the change in subsoil moisture conditions; and
- pH, electrical conductivity, cation exchange capacity and phosphorus retention index (PRI) for the effluent disposal assessment.

Results of the laboratory testing is summarised in Tables 2 and 3 below and test certificate is presented in Appendix D.

**Table 2: Results of Laboratory Testing for Soil Identification**

Pit	Depth (m)	Fines (%)	d <sub>60</sub> (mm)	LL (%)	PL (%)	PI (%)	LS (%)	Iss (%)	Material
TP2	0.5	58	0.09	49	19	30	14.5	-	Sandy clay
TP7	1.9	73	-	75	32	43	16.5	-	Sandy clay
TP8	1.2	77	-	-	-	-	-	4.5	Sandy clay

Where:

- The % fines is the amount of particles smaller than 75 µm
- A d<sub>60</sub> of 0.23 mm means that 60% of the sample particles are finer than 0.23 mm
- Iss: Shrink swell index
- '-' means 'Not Tested'
- LL: liquid limit
- PL: plastic limit
- PI: plasticity index
- LS: linear shrinkage

**Table 3: Results of Laboratory Testing for Effluent Disposal Assessment**

Pit	Depth (m)	Soil Type	pH	EC (ds/m)	CEC	PRI
TP3	0.6	Sandy clay	8.9	0.7	53	89
TP7	0.6	Sandy clay	9.1	1.5	64	97

Where:

- pH and EC tests are carried out in 1:5 (soil:water) solution.
- CEC - Cation Exchange Capacity
- EC - Electrical Conductivity
- PRI - Phosphorus Retention Index

## 6. Engineering Evaluation and Recommendations

### 6.1 Proposed Developments

It is understood that the proposed development will comprise the subdivision of the existing land of approximately 2.5 ha into ten new light industrial lots, namely Lots 1 to 10. It is assumed that standard low rise light industrial buildings will be constructed within the proposed new lots.

### 6.2 Site Classification

As noted in Section 4.1, ground conditions generally comprised sandy clay overlying sandstone.

Interpretation of the laboratory test results indicate characteristic surface movements (ys) of up to 65 mm. Thus, the site in its current condition should be classified as 'Class H2' in accordance with AS2870-2011.

The above site classification can be amended if a suitable imported non reactive filling material is present over the sandy clay. This material can be placed above existing ground surface following the removal of vegetation and topsoil, or the sandy clay can be excavated and replaced with the non

reactive filling material following suitable compaction. A suitable drainage strategy should be implemented to preclude the ponding of water at the base of the non reactive backfilled excavation.

The thickness of non-reactive filling required to improve the existing site classification from 'Class H2' to 'Class S' and 'Class M', was assessed. The assessed classifications and depth of required non-reactive filling, are presented in Table 4.

**Table 4: Required Filling to Improve Classification at Test Locations**

<b>Test Locations</b>	<b>Additional Non Reactive Filling Thickness (m) above Existing Ground Level to Achieve a 'Class M' Site</b>	<b>Additional Non Reactive Filling Thickness (m) above Existing Ground Level to Achieve a 'Class S' Site</b>
TP1 to TP10	1.2	1.8

The classification and fill thicknesses in Table 4 assume the site preparation is carried out detailed in Section 6.3.

Alternatively, the standard footing designs in AS2870-2011 for 'Class H2' could be used to design building footings if the proposed building layout and loading confirm to those in the code.

### 6.3 Site Works Preparation and Compaction

Prior to the excavation for foundations and/or placement of fill, all deleterious material, including vegetation and topsoil should be stripped from within each building envelope, and either removed from site or stockpiled for possible re-use as landscaping fill only.

The sandy clay excavated from the site should be suitable for use as structural fill, however, these materials are anticipated to be relatively difficult to moisture condition and compact. If re-used as structural filling, sandy clay filling would necessitate a high site classification of 'Class E'.

Imported filling, if required could comprise free draining cohesionless (non reactive) soils with less than 5% by weight of particles passing a 0.075 mm sieve. The material should also be free from organic matter and particles greater than 150 mm in size. It is recommended that imported non reactive filling be placed in loose lift layers of thickness between 200 mm and 300 mm, depending on roller size, within 2% of its optimum moisture content with each layer compacted to achieve a dry density ratio of not less than 95% MMDD.

Other granular materials with up to 15% fines could be used to amend the classification, in accordance with AS 2870-2011. However, such materials would not be free draining and their implication on drainage design should be considered.

During construction, some loosening of the surface sands (if used as filling material) in foundation excavations is expected. Therefore the base of any excavation should be re-compacted using a vibratory plate compactor prior to construction of any footings. Confirmation of adequate compaction of sands could be obtained by carrying out PSP tests to achieve a minimum blow count of 8 blows per

300 mm penetration to a depth of 1 m below finished lot level when tested in accordance with test method AS 1289.6.3.3.

## 6.4 Foundation Design

Shallow foundation systems comprising slab, pad and strip footings founded in at least stiff sandy clay or medium dense non reactive sand filling should be able to support proposed buildings, provided that the site preparation is undertaken as detailed in Section 6.3. These footings should be designed in accordance with AS 2870-1996 for the site classification discussed in Section 6.2.

It is emphasised that AS 2870-2011 applies to single houses, townhouses and the like classified as Class 1 and 10a under the Building Code of Australia. It also applies to light industrial and commercial buildings if they are similar in size, loading and superstructure flexibility to those designs included in AS 2870-2011. If not the case, footing systems of the proposed buildings should be designed using engineering principles. A presumptive allowable bearing pressure of 200 kPa is suggested for foundation design of strip and pad footings founded in at least stiff to very stiff natural sandy clay or medium dense non reactive filling.

## 6.5 Soil Permeability and Stormwater Disposal

As discussed in Section 4.1, the shallow ground conditions beneath the site generally comprise sandy clay overlying moderately weathered sandstone. The results of the permeability testing (refer Section 4.3) indicate a permeability value of  $5.9 \times 10^{-8}$  m/s or 0.005 m/day for the sandy clay encountered beneath the site.

Based on the results of the investigation, this site is considered to be unsuitable for stormwater disposal using infiltration system owing to the low permeability of the ground.

## 6.6 Pavement Design

Based on the results of the field work, it is suggested that a design CBR value of 3% for natural sandy clay subgrade be adopted for the design of flexible pavement.

It is also recommended that adequate surface and subsoil drainage be implemented in order to avoid saturation of the proposed pavement subgrade, to minimise the risk of developing excess pore pressure under trafficking that could lead to pavement failure.

## 6.7 Evaluation and Recommendations for On-site Wastewater Management

### 6.7.1 Site and Soil Effluent Disposal Preliminary Assessment

Site characteristics observed during the field work and soil properties determined during subsequent laboratory testing have been assessed in relation to the anticipated limitations that they pose to the on site disposal of domestic effluent.

For this assessment, reference has been made to the Code of Practice for the Design, Manufacture, Installation and Operation of Aerobic Treatment Unit (ATUs) - November 2001 and NSW Environment and Health Protection Guidelines. This later guideline evaluates various soil and site characteristics and assigns either a minor, moderate or major limitation depending on the restrictions to the disposal of domestic effluent. Minor limitations are regarded as not posing a constraint to the application of domestic effluent. Site and soil characteristics which are considered to be major limitations will require site or soil improvement measures to allow on site effluent disposal at the site.

The moderate and major limitations for effluent disposal within the site are discussed below.

#### 6.7.1.1 Soil Permeability

The main shallow soil type noted within the test pits is sandy clay. The sandy clay have been classified as soil permeability category Group 5 (reference to AS 1547-2000 Table 4.1.1) owing to its low permeability. This soil permeability category is considered to be a moderate to major limitation for surface and subsurface irrigation and absorption trenches as stated in AS/NZS 1547-2000.

#### 6.7.1.2 Dispersive Soils

The sandy clay soils encountered on the site display a tendency to become dispersive when saturated. When soil disperses (when clay particles separate from the main body of soil and become suspended) the clay particles block soil pore spaces and tend to swell more. The dispersiveness of the soil is considered to be a moderate to major limitation.

### 6.7.2 On-site Wastewater Management Options

#### 6.7.2.1 Primary Effluent Treatment System

Owing to the occurrence of clayey sand with the major limitations on soil permeability and dispersion mentioned above, it is suggested that the treatment of the primary effluent is undertaken to produce secondary quality effluent, prior to on-site disposal over the land surface.

A number of treatment options are possible and include the following:

- Aerobic Treatment Unit (ATU);
- Sand filters; and
- Closed cell (amended soil) evapo-transpiration systems.

The effluent treatment system selected for use should be approved by the WA Department of Health. The type of system adopted for each of the proposed allotments are assessed on a lot by lot basis and is dependent on the key parameters such as building size, location of the application area and water and nutrient reduction fixtures. It is our experience that for a rural subdivision as proposed for the site, ATU systems are most likely to be chosen by the future landowners.

Effluent that has been treated in an ATU has a lower biochemical oxygen demand (BOD), lower suspended solid level and much lower faecal coliform level than effluent that has been treated in a septic tank only. The ATU selected for use should be approved by the WA Health Department and be able to reduce the nitrogen concentration in the effluent to about 15 mg/L.

Incorporation of gypsum and/or lime in the ATU could decrease soil dispersivity. Gypsum application should be applied as per the AS/NZS 1547-2000.

Disposal of primary quality effluent, such as from a septic system directly to the land application area, may also be suitable, subject to approval by the consenting authority. However, this option is not recommended because:

- larger disposal areas will be required to cater for the higher nutrient loading of primarily treated effluent than would be required for secondary quality effluent; and
- the risk of water logging is high owing to the presence of shallow low permeability sandy clay. This risk would need to be addressed in the design phase, if this option is preferred.

### **6.7.2.2 Secondary Effluent Treatment System**

Secondary effluent treatment will be required if remediation works stipulated in Section 6.2 is adopted to amend the existing site classification. Generally sand or gravelly sand (non reactive soils) have a Phosphorus Retention Index (PRI) of less than 20. Hence the treatment of secondary effluent should be carried out using one of the following approaches, if non reactive materials are used as filling:

- Usage of alum dosing in the ATU system would decrease the nutrients such as phosphorus and nitrogen in the effluent to an acceptable level; or
- closed cell amended soil system.

### **6.7.2.3 Effluent Land Application**

Once the effluent has been treated by an approved system, the resulting effluent would be disposed of to the land surface.

The following comments are provided in order to provide guidance on application areas which may be suitable for the allotments within the subdivision.

The disposal area required for each allotment will be dependent on number of factors, including the following:

- treatment system adopted and quality of effluent produced;

- soil characteristics;
- climate conditions; and
- effluent loading, as determined by the size and nature of the proposed building and the water reduction fixtures utilised within the building.

Guidance on the minimum areas for land application of effluent which has been treated by an ATU system is provided in the “Code of Practice for the Design, Manufacture, Installation and Operation of Aerobic Treatment Unit (ATUs) - November 2001 issued by Government of Western Australia.

Based on the evaluation of the site, soil characteristics and above comments, a number of options are available for the effluent disposal system at this site, and include the following.

- surface, subsurface drip or trickle, covered surface or subsurface irrigation of effluent treated by an ATU system; and
- closed cell amended soil system.

The presence of mature trees in the effluent disposal area reduces evaporation and transpiration rates. Hence, the area proposed for effluent disposal should be located away from any stands of trees that remain after the construction of the proposed buildings.

### **6.7.3 Additional Comments in Relation to Effluent Disposal**

The performance of effluent disposal system is dependent on proper maintenance which should incorporate the following:

- The removal of sludge from septic tanks or sullage treatment tanks at three yearly intervals or as specified by local regulations or the manufacturer.
- Regular maintenance of surface vegetation to encourage water and nitrogen uptake.
- Maintenance of surface drains to prevent the ponding of water in the vicinity of the disposal area.

Disposal areas should be constructed to comply with the general recommendations contained within this report, the methods detailed in AS/NZS: 1547-2000, Code of Practice for the Design, Manufacture, Installation and Operation of Aerobic Treatment Unit (ATUs) - November 2001 and the respective local or state authority.

### **6.7.4 Conclusions on Site Suitability for Effluent Disposal**

The site is considered suitable for the disposal of domestic effluent in general accordance with AS/NZS 1547-2000, local government conditions and WA Department of Health, provided that the limitations raised in Section 6.7.1 are addressed.

Application of the treated effluent could be achieved using surface, subsurface drip or trickle, covered surface or subsurface irrigation or a closed cell amended soil system.

As there are a variety of Department of Health WA approved proprietary systems available, the choice of system can ultimately be made by the purchaser of the properties within the guidelines of AS:NZS 1547-2000, local government authorities, the WA Department of Health and the site characteristics described above.



The investigations undertaken during the present assessment of the site were aimed at characterising the site in relation the suitability for disposal of domestic effluent.

## 7. References

1. Australian Standard AS 1289-2000, Methods of Testing Soils for Engineering Purposes
2. Australian Standard AS 1726-1996, Geotechnical Site Investigations
3. Australian Standard AS 2870-2011, Residential Slabs and Footings
4. Australian Standard AS/NZS 1547-2000.
5. Australian Standard AS 3798-2007, Guidelines on Earthworks for Commercial and Residential Developments.
6. Environment & Health Protection Guidelines: On-site Sewage Management for Single Households - January 1998.
7. WA Health Department "draft Country Sewerage Policy".
8. Code of Practice for the Design, Manufacture, Installation and Operation of Aerobic Treatment Unit (ATUs) - November 2001

## 8. Limitations

Douglas Partners (DP) has prepared this report for a project part of Lot UCL 586 Huggett Drive in Dalwallinu, WA in accordance with DP's proposal dated 30 November 2010 and acceptance received from Porter Consulting Engineer on 11 January 2011. The report is provided for the exclusive use of Porter Consulting Engineers for this project only and for the purposes described in the report. It should not be used for other projects or by a third party. In preparing this report DP has necessarily relied upon information provided by the client and/or their agents.

The results provided in the report are indicative of the sub-surface conditions only at the specific sampling or testing locations, and then only to the depths investigated and at the time the work was carried out. Sub-surface conditions can change abruptly due to variable geological processes and also as a result of anthropogenic influences. Such changes may occur after DP's field testing has been completed.

DP's advice is based upon the conditions encountered during this investigation. The accuracy of the advice provided by DP in this report may be limited by undetected variations in ground conditions between sampling locations. The advice may also be limited by budget constraints imposed by others or by site accessibility.

This report must be read in conjunction with all of the attached notes and should be kept in its entirety without separation of individual pages or sections. DP cannot be held responsible for interpretations or conclusions made by others unless they are supported by an expressed statement, interpretation, outcome or conclusion given in this report.

This report, or sections from this report, should not be used as part of a specification for a project, without review and agreement by DP. This is because this report has been written as advice and opinion rather than instructions for construction.

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**Douglas Partners Pty Ltd**

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## Appendix A

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Notes Relating to this Report

# About this Report

# Douglas Partners



## Introduction

These notes have been provided to amplify DP's report in regard to classification methods, field procedures and the comments section. Not all are necessarily relevant to all reports.

DP's reports are based on information gained from limited subsurface excavations and sampling, supplemented by knowledge of local geology and experience. For this reason, they must be regarded as interpretive rather than factual documents, limited to some extent by the scope of information on which they rely.

## Copyright

This report is the property of Douglas Partners Pty Ltd. The report may only be used for the purpose for which it was commissioned and in accordance with the Conditions of Engagement for the commission supplied at the time of proposal. Unauthorised use of this report in any form whatsoever is prohibited.

## Borehole and Test Pit Logs

The borehole and test pit logs presented in this report are an engineering and/or geological interpretation of the subsurface conditions, and their reliability will depend to some extent on frequency of sampling and the method of drilling or excavation. Ideally, continuous undisturbed sampling or core drilling will provide the most reliable assessment, but this is not always practicable or possible to justify on economic grounds. In any case the boreholes and test pits represent only a very small sample of the total subsurface profile.

Interpretation of the information and its application to design and construction should therefore take into account the spacing of boreholes or pits, the frequency of sampling, and the possibility of other than 'straight line' variations between the test locations.

## Groundwater

Where groundwater levels are measured in boreholes there are several potential problems, namely:

- In low permeability soils groundwater may enter the hole very slowly or perhaps not at all during the time the hole is left open;

- A localised, perched water table may lead to an erroneous indication of the true water table;
- Water table levels will vary from time to time with seasons or recent weather changes. They may not be the same at the time of construction as are indicated in the report; and
- The use of water or mud as a drilling fluid will mask any groundwater inflow. Water has to be blown out of the hole and drilling mud must first be washed out of the hole if water measurements are to be made.

More reliable measurements can be made by installing standpipes which are read at intervals over several days, or perhaps weeks for low permeability soils. Piezometers, sealed in a particular stratum, may be advisable in low permeability soils or where there may be interference from a perched water table.

## Reports

The report has been prepared by qualified personnel, is based on the information obtained from field and laboratory testing, and has been undertaken to current engineering standards of interpretation and analysis. Where the report has been prepared for a specific design proposal, the information and interpretation may not be relevant if the design proposal is changed. If this happens, DP will be pleased to review the report and the sufficiency of the investigation work.

Every care is taken with the report as it relates to interpretation of subsurface conditions, discussion of geotechnical and environmental aspects, and recommendations or suggestions for design and construction. However, DP cannot always anticipate or assume responsibility for:

- Unexpected variations in ground conditions. The potential for this will depend partly on borehole or pit spacing and sampling frequency;
- Changes in policy or interpretations of policy by statutory authorities; or
- The actions of contractors responding to commercial pressures.

If these occur, DP will be pleased to assist with investigations or advice to resolve the matter.

## *About this Report*

### **Site Anomalies**

In the event that conditions encountered on site during construction appear to vary from those which were expected from the information contained in the report, DP requests that it be immediately notified. Most problems are much more readily resolved when conditions are exposed rather than at some later stage, well after the event.

### **Information for Contractual Purposes**

Where information obtained from this report is provided for tendering purposes, it is recommended that all information, including the written report and discussion, be made available. In circumstances where the discussion or comments section is not relevant to the contractual situation, it may be appropriate to prepare a specially edited document. DP would be pleased to assist in this regard and/or to make additional report copies available for contract purposes at a nominal charge.

### **Site Inspection**

The company will always be pleased to provide engineering inspection services for geotechnical and environmental aspects of work to which this report is related. This could range from a site visit to confirm that conditions exposed are as expected, to full time engineering presence on site.



## Sampling

Sampling is carried out during drilling or test pitting to allow engineering examination (and laboratory testing where required) of the soil or rock.

Disturbed samples taken during drilling provide information on colour, type, inclusions and, depending upon the degree of disturbance, some information on strength and structure.

Undisturbed samples are taken by pushing a thin-walled sample tube into the soil and withdrawing it to obtain a sample of the soil in a relatively undisturbed state. Such samples yield information on structure and strength, and are necessary for laboratory determination of shear strength and compressibility. Undisturbed sampling is generally effective only in cohesive soils.

## Test Pits

Test pits are usually excavated with a backhoe or an excavator, allowing close examination of the in-situ soil if it is safe to enter into the pit. The depth of excavation is limited to about 3 m for a backhoe and up to 6 m for a large excavator. A potential disadvantage of this investigation method is the larger area of disturbance to the site.

## Large Diameter Augers

Boreholes can be drilled using a rotating plate or short spiral auger, generally 300 mm or larger in diameter commonly mounted on a standard piling rig. The cuttings are returned to the surface at intervals (generally not more than 0.5 m) and are disturbed but usually unchanged in moisture content. Identification of soil strata is generally much more reliable than with continuous spiral flight augers, and is usually supplemented by occasional undisturbed tube samples.

## Continuous Spiral Flight Augers

The borehole is advanced using 90-115 mm diameter continuous spiral flight augers which are withdrawn at intervals to allow sampling or in-situ testing. This is a relatively economical means of drilling in clays and sands above the water table. Samples are returned to the surface, or may be collected after withdrawal of the auger flights, but they are disturbed and may be mixed with soils from the sides of the hole. Information from the drilling (as distinct from specific sampling by SPTs or undisturbed samples) is of relatively low

reliability, due to the remoulding, possible mixing or softening of samples by groundwater.

## Non-core Rotary Drilling

The borehole is advanced using a rotary bit, with water or drilling mud being pumped down the drill rods and returned up the annulus, carrying the drill cuttings. Only major changes in stratification can be determined from the cuttings, together with some information from the rate of penetration. Where drilling mud is used this can mask the cuttings and reliable identification is only possible from separate sampling such as SPTs.

## Continuous Core Drilling

A continuous core sample can be obtained using a diamond tipped core barrel, usually with a 50 mm internal diameter. Provided full core recovery is achieved (which is not always possible in weak rocks and granular soils), this technique provides a very reliable method of investigation.

## Standard Penetration Tests

Standard penetration tests (SPT) are used as a means of estimating the density or strength of soils and also of obtaining a relatively undisturbed sample. The test procedure is described in Australian Standard 1289, Methods of Testing Soils for Engineering Purposes - Test 6.3.1.

The test is carried out in a borehole by driving a 50 mm diameter split sample tube under the impact of a 63 kg hammer with a free fall of 760 mm. It is normal for the tube to be driven in three successive 150 mm increments and the 'N' value is taken as the number of blows for the last 300 mm. In dense sands, very hard clays or weak rock, the full 450 mm penetration may not be practicable and the test is discontinued.

The test results are reported in the following form.

- In the case where full penetration is obtained with successive blow counts for each 150 mm of, say, 4, 6 and 7 as:  
4,6,7  
N=13
- In the case where the test is discontinued before the full penetration depth, say after 15 blows for the first 150 mm and 30 blows for the next 40 mm as:  
15, 30/40 mm

# Sampling Methods

The results of the SPT tests can be related empirically to the engineering properties of the soils.

## **Dynamic Cone Penetrometer Tests / Perth Sand Penetrometer Tests**

Dynamic penetrometer tests (DCP or PSP) are carried out by driving a steel rod into the ground using a standard weight of hammer falling a specified distance. As the rod penetrates the soil the number of blows required to penetrate each successive 150 mm depth are recorded. Normally there is a depth limitation of 1.2 m, but this may be extended in certain conditions by the use of extension rods. Two types of penetrometer are commonly used.

- Perth sand penetrometer - a 16 mm diameter flat ended rod is driven using a 9 kg hammer dropping 600 mm (AS 1289, Test 6.3.3). This test was developed for testing the density of sands and is mainly used in granular soils and filling.
- Cone penetrometer - a 16 mm diameter rod with a 20 mm diameter cone end is driven using a 9 kg hammer dropping 510 mm (AS 1289, Test 6.3.2). This test was developed initially for pavement subgrade investigations, and correlations of the test results with California Bearing Ratio have been published by various road authorities.



## Description and Classification Methods

The methods of description and classification of soils and rocks used in this report are based on Australian Standard AS 1726, Geotechnical Site Investigations Code. In general, the descriptions include strength or density, colour, structure, soil or rock type and inclusions.

## Soil Types

Soil types are described according to the predominant particle size, qualified by the grading of other particles present:

Type	Particle size (mm)
Boulder	>200
Cobble	63 - 200
Gravel	2.36 - 63
Sand	0.075 - 2.36
Silt	0.002 - 0.075
Clay	<0.002

The sand and gravel sizes can be further subdivided as follows:

Type	Particle size (mm)
Coarse gravel	20 - 63
Medium gravel	6 - 20
Fine gravel	2.36 - 6
Coarse sand	0.6 - 2.36
Medium sand	0.2 - 0.6
Fine sand	0.075 - 0.2

The proportions of secondary constituents of soils are described as:

Term	Proportion	Example
And	Specify	Clay (60%) and Sand (40%)
Adjective	20 - 35%	Sandy Clay
Slightly	12 - 20%	Slightly Sandy Clay
With some	5 - 12%	Clay with some sand
With a trace of	0 - 5%	Clay with a trace of sand

Definitions of grading terms used are:

- Well graded - a good representation of all particle sizes
- Poorly graded - an excess or deficiency of particular sizes within the specified range
- Uniformly graded - an excess of a particular particle size
- Gap graded - a deficiency of a particular particle size with the range

## Cohesive Soils

Cohesive soils, such as clays, are classified on the basis of undrained shear strength. The strength may be measured by laboratory testing, or estimated by field tests or engineering examination. The strength terms are defined as follows:

Description	Abbreviation	Undrained shear strength (kPa)
Very soft	vs	<12
Soft	s	12 - 25
Firm	f	25 - 50
Stiff	st	50 - 100
Very stiff	vst	100 - 200
Hard	h	>200

## Cohesionless Soils

Cohesionless soils, such as clean sands, are classified on the basis of relative density, generally from the results of standard penetration tests (SPT), cone penetration tests (CPT) or dynamic penetrometers (PSP). The relative density terms are given below:

Relative Density	Abbreviation	SPT N value	CPT qc value (MPa)
Very loose	vl	<4	<2
Loose	l	4 - 10	2 - 5
Medium dense	md	10 - 30	5 - 15
Dense	d	30 - 50	15 - 25
Very dense	vd	>50	>25



# Soil Descriptions

## Soil Origin

It is often difficult to accurately determine the origin of a soil. Soils can generally be classified as:

- Residual soil - derived from in-situ weathering of the underlying rock;
- Transported soils - formed somewhere else and transported by nature to the site; or
- Filling - moved by man.

Transported soils may be further subdivided into:

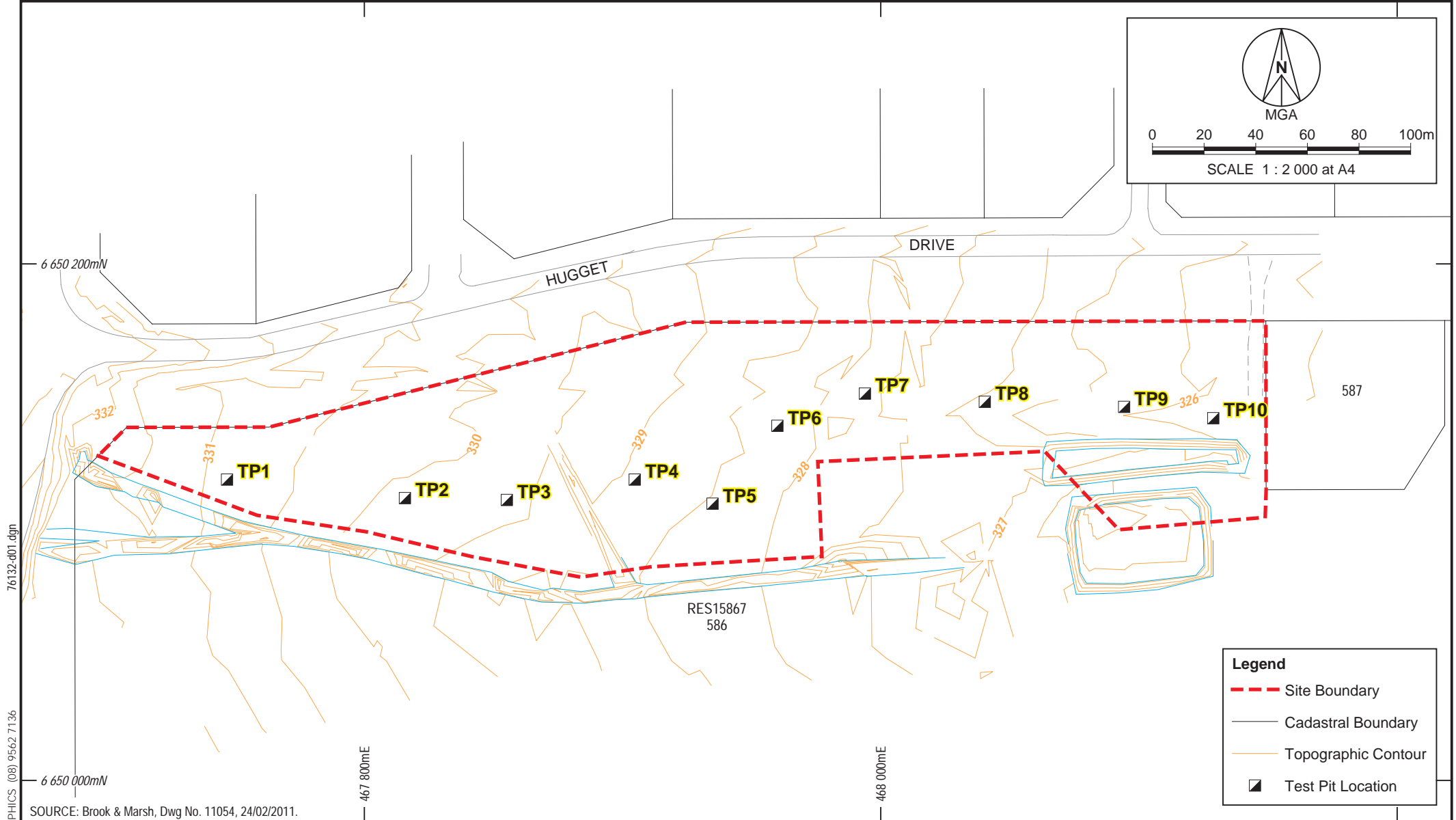
- Alluvium - river deposits
- Lacustrine - lake deposits
- Aeolian - wind deposits
- Littoral - beach deposits
- Estuarine - tidal river deposits
- Talus - scree or coarse colluvium
- Slopewash or Colluvium - transported downslope by gravity assisted by water. Often includes angular rock fragments and boulders.

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## Appendix B

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Site Plan and Test Location




76132.d01.dgn

PINPOINT CARTOGRAPHICS (08) 9562 7136

SOURCE: Brook & Marsh, Dwg No. 11054, 24/02/2011.

**Legend**

- - - Site Boundary
- Cadastral Boundary
- Topographic Contour
- ▣ Test Pit Location

 <b>Douglas Partners</b> Geotechnics   Environment   Groundwater	CLIENT: IPCE	<b>Location of Tests</b> <b>Pt Lot 586 Hugget Drive</b> <b>Dalwallinu WA</b>	PROJECT No.: 76132
	OFFICE: Perth		DRAWING No.: 1
	DATE: 9 Mar 2011		REVISION: A

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## Appendix C

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Results of Field Work

# TEST PIT LOG

**CLIENT:** Porter Consulting Engineers  
**PROJECT:** Proposed Industrial Subdivision  
**LOCATION:** UCL 586, Dalwallinu, WA

**SURFACE LEVEL:** 331.2 AHD  
**EASTING:**  
**NORTHING:**  
**DIP/AZIMUTH:** 90°/--

**PIT No:** TP 1  
**PROJECT No:** 76132.00  
**DATE:** 14/1/2011  
**SHEET 1 OF 1**

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing				Water	Dynamic Penetrometer Test (blows per 150mm)					
				Type	Depth	Sample	Results & Comments		5	10	15	20		
331		SANDY CLAY - stiff, red-brown mottled white, high plasticity, sandy clay, fine to medium grained sand with some fine gravel, dry.												
	0.6	SANDY CLAY - very stiff to hard, red-brown, high plasticity, sandy clay, fine to medium grained sand, moist.												
	1			DCP	1.2									
330				pp	1.8		pp = 400							
	2		D	2.0										
329		- becoming red-brown mottled grey from 2.3m.												
	2.5	Pit discontinued at 2.5m (target depth)												

**RIG:** 22 Tonne Samsung Ex 30 Excavator (750mm rock toothed bucket)

**LOGGED:** S Seenu

**SURVEY DATUM:** MGA94

**WATER OBSERVATIONS:** No free groundwater observed

Sand Penetrometer AS1289.6.3.3

**REMARKS:** Survey level is interpolated from the survey plan provided by the client

Cone Penetrometer AS1289.6.3.2

SAMPLING & IN SITU TESTING LEGEND			
A	Auger sample	G	Gas sample
B	Bulk sample	P	Piston sample
BLK	Block sample	U	Tube sample (x mm dia.)
C	Core drilling	W	Water sample
D	Disturbed sample	W	Water seep
E	Environmental sample	W	Water level
		PID	Photo ionisation detector (ppm)
		PL(A)	Point load axial test Is(50) (MPa)
		PL(D)	Point load diametral test Is(50) (MPa)
		pp	Pocket penetrometer (kPa)
		S	Standard penetration test
		V	Shear vane (kPa)



# TEST PIT LOG

**CLIENT:** Porter Consulting Engineers  
**PROJECT:** Proposed Industrial Subdivision  
**LOCATION:** UCL 586, Dalwallinu, WA

**SURFACE LEVEL:** 329.8 AHD  
**EASTING:**  
**NORTHING:**  
**DIP/AZIMUTH:** 90°/--

**PIT No:** TP 2  
**PROJECT No:** 76132.00  
**DATE:** 14/1/2011  
**SHEET 1 OF 1**

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing				Water	Dynamic Penetrometer Test (blows per 150mm)			
				Type	Depth	Sample	Results & Comments		5	10	15	20
		SANDY CLAY - stiff, red-brown mottled white, high plasticity, sandy clay, fine to medium grained sand with trace fine gravel, dry.		D	0.5							
	0.6	grading very stiff										
329		SANDY CLAY - very stiff to hard, red-brown, high plasticity, sandy clay, fine to medium grained sand, moist.		DCP	1.2							
1												
328												
	2			pp	2.0		pp = 450					
				pp	2.3		pp = 500					
327	2.5	Pit discontinued at 2.5m (target depth)										

**RIG:** 22 Tonne Samsung Ex 30 Excavator (750mm rock toothed bucket)

**LOGGED:** S Seenu

**SURVEY DATUM:** MGA94

**WATER OBSERVATIONS:** No free groundwater observed

Sand Penetrometer AS1289.6.3.3

**REMARKS:** Survey level is interpolated from the survey plan provided by the client

Cone Penetrometer AS1289.6.3.2

SAMPLING & IN SITU TESTING LEGEND			
A	Auger sample	G	Gas sample
B	Bulk sample	P	Piston sample
BLK	Block sample	U	Tube sample (x mm dia.)
C	Core drilling	W	Water sample
D	Disturbed sample	W	Water seep
E	Environmental sample	W	Water level
		PID	Photo ionisation detector (ppm)
		PL(A)	Point load axial test Is(50) (MPa)
		PL(D)	Point load diametral test Is(50) (MPa)
		pp	Pocket penetrometer (kPa)
		S	Standard penetration test
		V	Shear vane (kPa)



# TEST PIT LOG

**CLIENT:** Porter Consulting Engineers  
**PROJECT:** Proposed Industrial Subdivision  
**LOCATION:** UCL 586, Dalwallinu, WA

**SURFACE LEVEL:** 329.2 AHD  
**EASTING:**  
**NORTHING:**  
**DIP/AZIMUTH:** 90°/--

**PIT No:** TP 3  
**PROJECT No:** 76132.00  
**DATE:** 14/1/2011  
**SHEET 1 OF 1**

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing				Water	Dynamic Penetrometer Test (blows per 150mm)				
				Type	Depth	Sample	Results & Comments		5	10	15	20	
329		SANDY CLAY - stiff, red-brown mottled white, high plasticity, sandy clay, fine to medium grained sand with some fine gravel, dry.		D	0.6								
0.7		SANDY CLAY - very stiff to hard, red-brown, high plasticity, sandy clay, fine to medium grained sand, moist.											
1				DCP	1.2								
328				D	1.5								
2				pp	2.0		pp = 500						
327		- becoming red-brown mottled pale grey from 2.3m.											
2.5		Pit discontinued at 2.5m (target depth)											

**RIG:** 22 Tonne Samsung Ex 30 Excavator (750mm rock toothed bucket)

**LOGGED:** S Seenu

**SURVEY DATUM:** MGA94

**WATER OBSERVATIONS:** No free groundwater observed

Sand Penetrometer AS1289.6.3.3

**REMARKS:** Survey level is interpolated from the survey plan provided by the client

Cone Penetrometer AS1289.6.3.2

SAMPLING & IN SITU TESTING LEGEND			
A	Auger sample	G	Gas sample
B	Bulk sample	P	Piston sample
BLK	Block sample	U	Tube sample (x mm dia.)
C	Core drilling	W	Water sample
D	Disturbed sample	W	Water seep
E	Environmental sample	W	Water level
		PLD	Photo ionisation detector (ppm)
		PL(A)	Point load axial test Is(50) (MPa)
		PL(D)	Point load diametral test Is(50) (MPa)
		pp	Pocket penetrometer (kPa)
		S	Standard penetration test
		V	Shear vane (kPa)



# TEST PIT LOG

**CLIENT:** Porter Consulting Engineers  
**PROJECT:** Proposed Industrial Subdivision  
**LOCATION:** UCL 586, Dalwallinu, WA

**SURFACE LEVEL:** 328.8 AHD  
**EASTING:**  
**NORTHING:**  
**DIP/AZIMUTH:** 90°/--

**PIT No:** TP 4  
**PROJECT No:** 76132.00  
**DATE:** 14/1/2011  
**SHEET 1 OF 1**

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing				Water	Dynamic Penetrometer Test (blows per 150mm)					
				Type	Depth	Sample	Results & Comments		5	10	15	20		
		SANDY CLAY - stiff to very stiff, red-brown mottled white, high plasticity, sandy clay, fine to medium grained sand with some fine gravel, dry.												
328	0.7	SANDY CLAY - very stiff to hard, red-brown, high plasticity, sandy clay, fine to medium grained sand, moist.												
	1			pp	1.0		pp = 400							
				DCP	1.2									
	2			pp	1.8		pp = 500							
	2			pp	2.3		pp = 500							
	2.5	Pit discontinued at 2.5m (target depth)												
326														

**RIG:** 22 Tonne Samsung Ex 30 Excavator (750mm rock toothed bucket)

**LOGGED:** S Seenu

**SURVEY DATUM:** MGA94

**WATER OBSERVATIONS:** No free groundwater observed

Sand Penetrometer AS1289.6.3.3

**REMARKS:** Survey level is interpolated from the survey plan provided by the client

Cone Penetrometer AS1289.6.3.2

SAMPLING & IN SITU TESTING LEGEND			
A	Auger sample	G	Gas sample
B	Bulk sample	P	Piston sample
BLK	Block sample	U	Tube sample (x mm dia.)
C	Core drilling	W	Water sample
D	Disturbed sample	>	Water seep
E	Environmental sample	≡	Water level
		PID	Photo ionisation detector (ppm)
		PL(A)	Point load axial test Is(50) (MPa)
		PL(D)	Point load diametral test Is(50) (MPa)
		pp	Pocket penetrometer (kPa)
		S	Standard penetration test
		V	Shear vane (kPa)





# TEST PIT LOG

**CLIENT:** Porter Consulting Engineers  
**PROJECT:** Proposed Industrial Subdivision  
**LOCATION:** UCL 586, Dalwallinu, WA

**SURFACE LEVEL:** 328.5 AHD  
**EASTING:**  
**NORTHING:**  
**DIP/AZIMUTH:** 90°/--

**PIT No:** TP 5  
**PROJECT No:** 76132.00  
**DATE:** 14/1/2011  
**SHEET 1 OF 1**

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing				Water	Dynamic Penetrometer Test (blows per 150mm)					
				Type	Depth	Sample	Results & Comments		5	10	15	20		
328	0.8	SANDY CLAY - stiff to very stiff, red-brown mottled white, high plasticity, sandy clay, fine to medium grained sand with some fine gravel, dry.  grading very stiff to hard												
327	1.2	SANDY CLAY - very stiff to hard, red-brown, high plasticity, sandy clay, fine to medium grained sand, moist.		pp	1.2		pp = 400							
	1.8			D	1.8									
	2.0	SANDSTONE - low to medium strength, moderately weathered, red-brown mottled white, fine to medium grained.		pp	2.0		pp = 500							
326	2.2	Pit discontinued at 2.2m (bucket refusal on sandstone)												

**RIG:** 22 Tonne Samsung Ex 30 Excavator (750mm rock toothed bucket)

**LOGGED:** S Seenu

**SURVEY DATUM:** MGA94

**WATER OBSERVATIONS:** No free groundwater observed

Sand Penetrometer AS1289.6.3.3

**REMARKS:** Survey level is interpolated from the survey plan provided by the client

Cone Penetrometer AS1289.6.3.2

SAMPLING & IN SITU TESTING LEGEND					
A	Auger sample	G	Gas sample	PID	Photo ionisation detector (ppm)
B	Bulk sample	P	Piston sample	PL(A)	Point load axial test Is(50) (MPa)
BLK	Block sample	U	Tube sample (x mm dia.)	PL(D)	Point load diametral test Is(50) (MPa)
C	Core drilling	W	Water sample	pp	Pocket penetrometer (kPa)
D	Disturbed sample	>	Water seep	S	Standard penetration test
EE	Environmental sample	≡	Water level	V	Shear vane (kPa)



# TEST PIT LOG

**CLIENT:** Porter Consulting Engineers  
**PROJECT:** Proposed Industrial Subdivision  
**LOCATION:** UCL 586, Dalwallinu, WA

**SURFACE LEVEL:** 328.0 AHD  
**EASTING:**  
**NORTHING:**  
**DIP/AZIMUTH:** 90°/--

**PIT No:** TP 6  
**PROJECT No:** 76132.00  
**DATE:** 14/1/2011  
**SHEET 1 OF 1**

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing				Water	Dynamic Penetrometer Test (blows per 150mm)					
				Type	Depth	Sample	Results & Comments		5	10	15	20		
328	0.1	SANDY SILTY CLAY - dry topsoil.												
		SANDY CLAY - stiff to very stiff, pale red-brown mottled white, high plasticity, sandy clay, fine to medium grained sand, dry.												
	0.6	SANDY CLAY - very stiff to hard, pale red-brown mottled pale grey, high plasticity, sandy clay, fine to medium grained sand, moist.		pp	0.7		pp=>400kPa							
327	1			pp	1.2		pp=>400kPa							
	1.7	SANDSTONE - low to medium strength, moderately weathered, orange-brown to red-brown mottled white, fine to medium grained.												
	1.8	Pit discontinued at 1.8m (bucket refusal on sandstone)												
326	2													

**RIG:** 22 Tonne Samsung Ex 30 Excavator (750mm rock toothed bucket)

**LOGGED:** S Seenu

**SURVEY DATUM:** MGA94

**WATER OBSERVATIONS:** No free groundwater observed

Sand Penetrometer AS1289.6.3.3

**REMARKS:** Survey level is interpolated from the survey plan provided by the client

Cone Penetrometer AS1289.6.3.2

SAMPLING & IN SITU TESTING LEGEND			
A	Auger sample	G	Gas sample
B	Bulk sample	P	Piston sample
BLK	Block sample	U	Tube sample (x mm dia.)
C	Core drilling	W	Water sample
D	Disturbed sample	>	Water seep
E	Environmental sample	≡	Water level
		PID	Photo ionisation detector (ppm)
		PL(A)	Point load axial test Is(50) (MPa)
		PL(D)	Point load diametral test Is(50) (MPa)
		pp	Pocket penetrometer (kPa)
		S	Standard penetration test
		V	Shear vane (kPa)



# TEST PIT LOG

**CLIENT:** Porter Consulting Engineers  
**PROJECT:** Proposed Industrial Subdivision  
**LOCATION:** UCL 586, Dalwallinu, WA

**SURFACE LEVEL:** 327.5 AHD  
**EASTING:**  
**NORTHING:**  
**DIP/AZIMUTH:** 90°/--

**PIT No:** TP 7  
**PROJECT No:** 76132.00  
**DATE:** 14/1/2011  
**SHEET 1 OF 1**

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing				Water	Dynamic Penetrometer Test (blows per 150mm)					
				Type	Depth	Sample	Results & Comments		5	10	15	20		
327		SANDY CLAY - stiff to very stiff, red-brown, high plasticity, sandy clay, fine to medium grained sand with some fine gravel, dry.		D	0.6									
0.9		SANDY CLAY - stiff to very stiff, pale red-brown mottled pale grey, high plasticity, sandy clay, fine to medium grained sand, moist.		DCP	1.2									
1		grading very stiff to hard												
326				D	1.9									
2				pp	2.0		pp = 500							
2.5		- trace of cobbles from 2.4m.												
	2.5	Pit discontinued at 2.5m (target depth)												

**RIG:** 22 Tonne Samsung Ex 30 Excavator (750mm rock toothed bucket)

**LOGGED:** S Seenu

**SURVEY DATUM:** MGA94

**WATER OBSERVATIONS:** No free groundwater observed

Sand Penetrometer AS1289.6.3.3

**REMARKS:** Survey level is interpolated from the survey plan provided by the client

Cone Penetrometer AS1289.6.3.2

SAMPLING & IN SITU TESTING LEGEND			
A	Auger sample	G	Gas sample
B	Bulk sample	P	Piston sample
BLK	Block sample	U	Tube sample (x mm dia.)
C	Core drilling	W	Water sample
D	Disturbed sample	W	Water seep
E	Environmental sample	W	Water level
		PID	Photo ionisation detector (ppm)
		PL(A)	Point load axial test Is(50) (MPa)
		PL(D)	Point load diametral test Is(50) (MPa)
		pp	Pocket penetrometer (kPa)
		S	Standard penetration test
		V	Shear vane (kPa)



# TEST PIT LOG

**CLIENT:** Porter Consulting Engineers  
**PROJECT:** Proposed Industrial Subdivision  
**LOCATION:** UCL 586, Dalwallinu, WA

**SURFACE LEVEL:** 326.8 AHD  
**EASTING:**  
**NORTHING:**  
**DIP/AZIMUTH:** 90°/--

**PIT No:** TP 8  
**PROJECT No:** 76132.00  
**DATE:** 14/1/2011  
**SHEET 1 OF 1**

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing				Water	Dynamic Penetrometer Test (blows per 150mm)				
				Type	Depth	Sample	Results & Comments		5	10	15	20	
	0.3	SILTY SANDY CLAY - topsoil with some gravel, red-brown, dry.											
	1.0	SANDY CLAY - stiff, red-brown mottled white, high plasticity, sandy clay, fine to medium grained sand, trace fine to medium gravel, dry.											
326													
	1.0	SANDY CLAY - stiff to very stiff, pale red-brown mottled pale grey, high plasticity, sandy clay, moist.		U	1.2								
325													
	2.0												
	2.5	Pit discontinued at 2.5m (target depth)											
324													

**RIG:** 22 Tonne Samsung Ex 30 Excavator (750mm rock toothed bucket)

**LOGGED:** S Seenu

**SURVEY DATUM:** MGA94

**WATER OBSERVATIONS:** No free groundwater observed

Sand Penetrometer AS1289.6.3.3

**REMARKS:** Survey level is interpolated from the survey plan provided by the client

Cone Penetrometer AS1289.6.3.2

SAMPLING & IN SITU TESTING LEGEND			
A	Auger sample	G	Gas sample
B	Bulk sample	P	Piston sample
BLK	Block sample	U	Tube sample (x mm dia.)
C	Core drilling	W	Water sample
D	Disturbed sample	W	Water seep
E	Environmental sample	W	Water level
		PID	Photo ionisation detector (ppm)
		PL(A)	Point load axial test Is(50) (MPa)
		PL(D)	Point load diametral test Is(50) (MPa)
		pp	Pocket penetrometer (kPa)
		S	Standard penetration test
		V	Shear vane (kPa)

# TEST PIT LOG

**CLIENT:** Porter Consulting Engineers  
**PROJECT:** Proposed Industrial Subdivision  
**LOCATION:** UCL 586, Dalwallinu, WA

**SURFACE LEVEL:** 326.5 AHD  
**EASTING:**  
**NORTHING:**  
**DIP/AZIMUTH:** 90°/--

**PIT No:** TP 9  
**PROJECT No:** 76132.00  
**DATE:** 14/1/2011  
**SHEET 1 OF 1**

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing				Water	Dynamic Penetrometer Test (blows per 150mm)					
				Type	Depth	Sample	Results & Comments		5	10	15	20		
	0.1	TOPSOIL - silty sandy clay, red-brown.												
326		SANDY CLAY - stiff, red-brown mottled white, high plasticity, sandy clay, fine to medium grained sand, some fine to medium gravel, dry.												
	0.8	SANDY CLAY - stiff to very stiff, red-brown, high plasticity, sandy clay, fine to medium grained sand, trace cobbles, moist.		D	0.7									
	1													
325														
	1.8	SANDSTONE - low to medium strength, moderately weathered, orange-brown to red-brown mottled white, fine to medium grained.		DCP	1.2									
2														
	2.1	Pit discontinued at 2.1m (bucket refusal on sandstone)												
324														

**RIG:** 22 Tonne Samsung Ex 30 Excavator (750mm rock toothed bucket)

**LOGGED:** S Seenu

**SURVEY DATUM:** MGA94

**WATER OBSERVATIONS:** No free groundwater observed

Sand Penetrometer AS1289.6.3.3

**REMARKS:** Survey level is interpolated from the survey plan provided by the client

Cone Penetrometer AS1289.6.3.2

SAMPLING & IN SITU TESTING LEGEND			
A	Auger sample	G	Gas sample
B	Bulk sample	P	Piston sample
BLK	Block sample	U	Tube sample (x mm dia.)
C	Core drilling	W	Water sample
D	Disturbed sample	∇	Water seep
EE	Environmental sample	☼	Water level
		PID	Photo ionisation detector (ppm)
		PL(A)	Point load axial test Is(50) (MPa)
		PL(D)	Point load diametral test Is(50) (MPa)
		pp	Pocket penetrometer (kPa)
		S	Standard penetration test
		V	Shear vane (kPa)



# TEST PIT LOG

**CLIENT:** Porter Consulting Engineers  
**PROJECT:** Proposed Industrial Subdivision  
**LOCATION:** UCL 586, Dalwallinu, WA

**SURFACE LEVEL:** 330.5 AHD  
**EASTING:**  
**NORTHING:**  
**DIP/AZIMUTH:** 90°/--

**PIT No:** TP10  
**PROJECT No:** 76132.00  
**DATE:** 14/1/2011  
**SHEET 1 OF 1**

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing				Water	Dynamic Penetrometer Test (blows per 150mm)					
				Type	Depth	Sample	Results & Comments		5	10	15	20		
	0.1	TOPSOIL - silty sandy clay, red-brown.												
		SANDY CLAY - stiff to very stiff, red-brown, high plasticity, sandy clay, fine to medium grained sand, some fine gravel.												
330														
	0.9	SANDY CLAY - very stiff to hard, red-brown, high plasticity, silty clay, fine to medium grained sand, moist.		D	1.2									
328														
	1.9	SANDSTONE - low to medium strength, moderately weathered, orange-brown to red-brown mottled white, fine to medium grained.												
2	2.0	Pit discontinued at 2.0m (bucket refusal on sandstone)												
328														

**RIG:** 22 Tonne Samsung Ex 30 Excavator (750mm rock toothed bucket)

**LOGGED:** S Seenu

**SURVEY DATUM:** MGA94

**WATER OBSERVATIONS:** No free groundwater observed

Sand Penetrometer AS1289.6.3.3

**REMARKS:** Survey level is interpolated from the survey plan provided by the client

Cone Penetrometer AS1289.6.3.2

SAMPLING & IN SITU TESTING LEGEND			
A	Auger sample	G	Gas sample
B	Bulk sample	P	Piston sample
BLK	Block sample	U <sub>s</sub>	Tube sample (x mm dia.)
C	Core drilling	W	Water sample
D	Disturbed sample	▷	Water seep
E	Environmental sample	≡	Water level
		PID	Photo ionisation detector (ppm)
		PL(A)	Point load axial test Is(50) (MPa)
		PL(D)	Point load diametral test Is(50) (MPa)
		pp	Pocket penetrometer (kPa)
		S	Standard penetration test
		V	Shear vane (kPa)



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## Appendix D

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### Geotechnical Laboratory Testing Results

# Particle Size Distribution & Plasticity Index tests

**Mining & Civil**

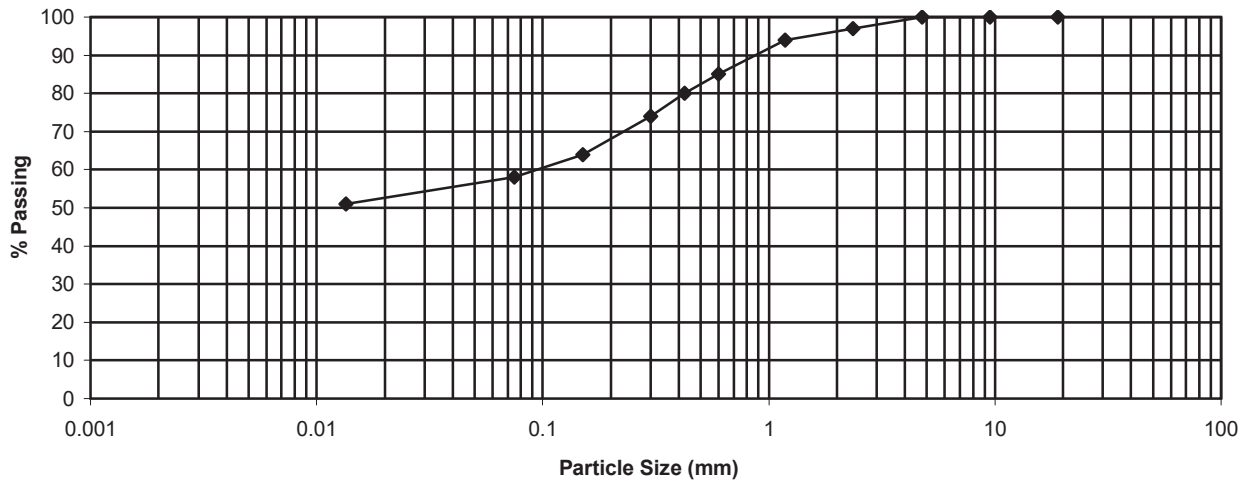
**Geotest Pty Ltd**

unit1/1 Pusey Road, Jandakot, WA 6164  
 Ph (08) 9414 8022 Fax (08) 9414 8011  
 Email: kevin@mcgeotest.com.au

**Job No:** 60017  
**Report No:** 60017-P11/193  
**Sample No:** P11/193  
**Issue Date:** 25 Jan 2011

**Client:** Porter Consulting Engineers  
**Project:** Proposed Industrial Subdivision  
**Location:** Huggett Drive, Dalwallinu

**Sample Location:** TP2  
**Depth (m):** 0.5



**SIEVE ANALYSIS WA 115.1**

Sieve Size (mm)	% Passing
75.0	100
37.5	100
19.0	100
9.5	100
4.75	100
2.36	97
1.18	94
0.600	85
0.425	80
0.300	74
0.150	64
0.075	58
0.0135	51

**Plasticity Index tests**

**Australian Standard 1289.**

<b>Liquid Limit 3.1.1</b>	49	%
<b>Plastic Limit 3.2.1</b>	19	%
<b>Plasticity Index 3.3.1</b>	30	%
<b>Linear Shrinkage 3.4.1</b>	14.5	%

**Cracked**

**Curled**

Sampling Procedure: Tested as received



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Approved signature

Kevin M Jones



# Particle Size Distribution & Plasticity Index tests

**Mining & Civil**

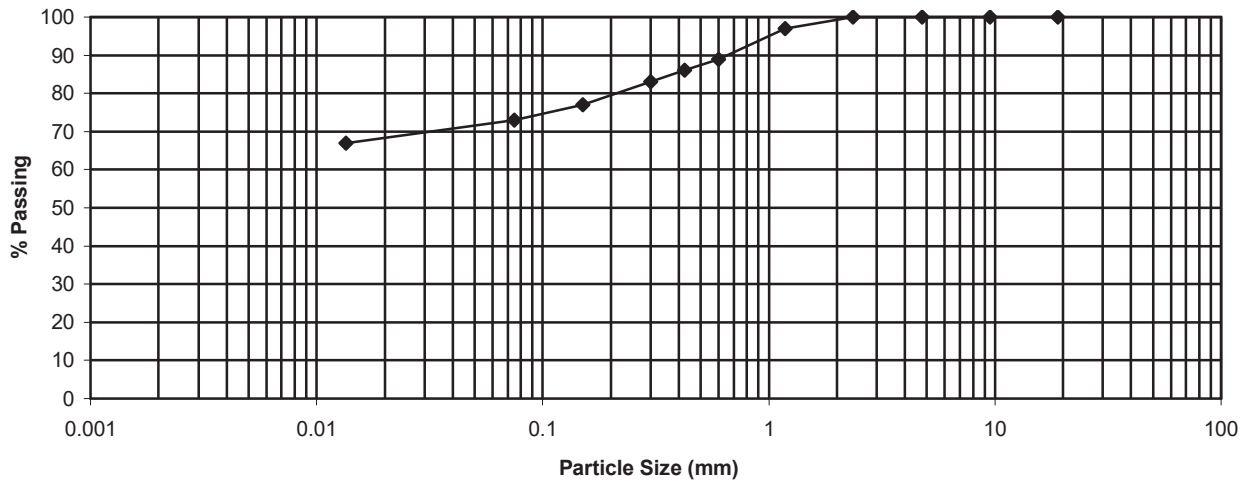
**Geotest Pty Ltd**

unit1/1 Pusey Road, Jandakot, WA 6164  
 Ph (08) 9414 8022 Fax (08) 9414 8011  
 Email: kevin@mcgeotest.com.au

**Job No:** 60017  
**Report No:** 60017-P11/195  
**Sample No:** P11/195  
**Issue Date:** 25 Jan 2011

**Client:** Porter Consulting Engineers  
**Project:** Proposed Industrial Subdivision  
**Location:** Huggett Drive, Dalwallinu

**Sample Location:** TP7  
**Depth (m):** 1.9



**SIEVE ANALYSIS WA 115.1**

Sieve Size (mm)	% Passing
75.0	100
37.5	100
19.0	100
9.5	100
4.75	100
2.36	100
1.18	97
0.600	89
0.425	86
0.300	83
0.150	77
0.075	73
0.0135	67

**Plasticity Index tests**

**Australian Standard 1289.**

<b>Liquid Limit 3.1.1</b>	75	%
<b>Plastic Limit 3.2.1</b>	32	%
<b>Plasticity Index 3.3.1</b>	43	%
<b>Linear Shrinkage 3.4.1</b>	16.5	%

**Cracked**

**Curled**

Sampling Procedure: Tested as received



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Approved signature

Kevin M Jones

## Particle Size Distribution & Plasticity Index tests

**Mining &  
Civil**

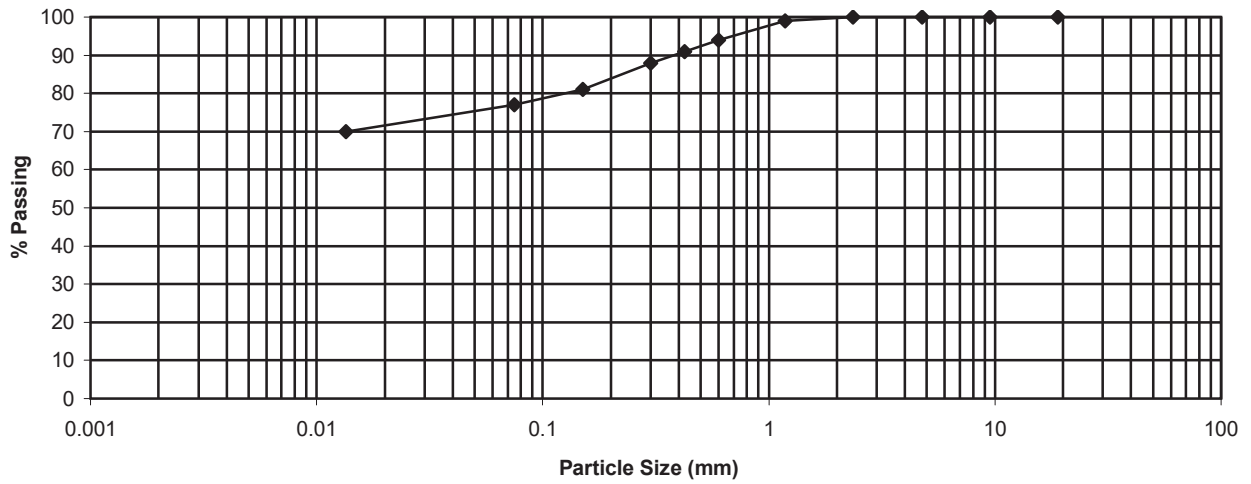
**Geotest Pty Ltd**

unit1/1 Pusey Road, Jandakot, WA 6164  
Ph (08) 9414 8022 Fax (08) 9414 8011  
Email: kevin@mcgeotest.com.au

**Job No:** 60017  
**Report No:** 60017-P11/196  
**Sample No:** P11/196  
**Issue Date:** 25 Jan 2011

**Client:** Porter Consulting Engineers  
**Project:** Proposed Industrial Subdivision  
**Location:** Huggett Drive, Dalwallinu

**Sample Location:** TP8  
**Depth (m):** 1.2



**SIEVE ANALYSIS WA 115.1**

Sieve Size (mm)	% Passing
75.0	
37.5	
19.0	100
9.5	100
4.75	100
2.36	100
1.18	99
0.600	94
0.425	91
0.300	88
0.150	81
0.075	77
0.0135	70

**Plasticity Index tests**

**Australian Standard 1289.**

<b>Liquid Limit 3.1.1</b>	N/A	%
<b>Plastic Limit 3.2.1</b>		%
<b>Plasticity Index 3.3.1</b>		%
<b>Linear Shrinkage 3.4.1</b>		%

Sampling Procedure: Tested as received



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Approved signature

Kevin M Jones

**Mining &  
Civil  
Geotest Pty Ltd**

**Determination of the Shrinkage Index of a Soil  
Shrink Swell Index  
AS 1289.7.1.1**

Ph (08) 9414 8022 Fax (08) 9414 8011  
Email kevin@mcgeotest.com.au  
Unit 1/1 Pusey Road, JANDAKOT WA 6164

Job No: 60017  
Report No: 60017-P11/196  
Date of issue: 31 January 2011

Client:	Porter Consulting Engineers	Date tested:	19 January 2011
Project:	Proposed Industrial Subdivision	Tested by:	J Waldron
Location:	Huggett Drive, Dalwallinu	Checked:	K M Jones
Test Pit:	TP 8, 1.2m	Sample No:	P11/196

**Sample details**

Sample description : Brown Sandy Clay  
Sample Type : 48 mm Ø tube sample

**Swell Specimen**

**Shrinkage Specimen**

Dry Density - Initial (t/m <sup>3</sup> )	1.55	Moisture Content Initial (%)	24.6
Moisture Content - Initial (%)	23.8	Length/Diameter Ratio	1.95
Moisture Content - Final (%)	33.0	Extent of Crumbling	Nil
Overburden Pressure (kPa)	25	Extent of Cracking	Nil
Significant Inert Inclusions (%)	0		

**Shrink-Swell Index**

$I_{ss} = 4.5$  % Vertical strain per pF change in Total suction

Client address: 36 O'Malley St, Osborne Park

Tested as received

Shrink-Swell Index September 2010



Approved Signature

kevin M Jones

## Report of Examination



**Order No.** 93037  
**Your Ref**  
**Our Ref** 10A0323  
**Enquiries** Rick Staker  
**Telephone** 08 9422 9987

01 FEB 2011

Sunthar Seenu  
 Douglas Partners  
 36 O'Malley Street  
 Osborne Park WA 6017

**Report on 6 samples of soil**  
**Received on 21/01/2011**

CCWA ID	Client ID	Client Description
10A0323 / 001	76132 TP3 0.6	76132 TP3 0.6
10A0323 / 002	76132 TP7 0.6	76132 TP7 0.6
10A0323 / 003	76133 TP2 0.8	76133 TP2 0.8
10A0323 / 004	76133 TP8 0.5	76133 TP8 0.5
10A0323 / 005	76132.1 TP3 0.2	76132.1 TP3 0.2
10A0323 / 006	76132.1 TP21 0.4	76132.1 TP21 0.4

CCWA ID	001	002	003	004		
Client ID	76132 TP3 0.6	76132 TP7 0.6	76133 TP2 0.8	76133 TP8 0.5		
Analyte	Method	Unit				
P	PRI	mL/g	89	97	36	54

CCWA ID	005	006		
Client ID	76132.1 TP3 0.2	76132.1 TP21 0.4		
Analyte	Method	Unit		
P	PRI	mL/g	8.8	28

Analyte	Method	Description
P	PRI	Phosphorus Retention Index by method S15

The results apply only to samples as received. This report may only be reproduced in full.

Unless otherwise advised, the samples in this job will be disposed of after a holding period of 30 days from the report date shown below.

Phosphorus Retention Index (PRI) is a measure of the ability of soil to retain or leach applied phosphate.



10A0323  
 28/01/2011

130

**Chemistry Centre of Western Australia  
Land Resources  
Report of Examination**

PRI is defined as the ratio  $P_{ads} : P_{eq}$  where  $P_{ads}$  is the amount of phosphorus adsorbed by soil ( $\mu\text{g P/g}$ ).

$P_{eq}$  is the equilibrium concentration of phosphorus in solution ( $\mu\text{g P/mL}$ ) following equilibration of soil with a solution initially containing  $10 \mu\text{g P/mL}$  in  $0.02 \text{ M KCl}$  and  $0.25\%$  chloroform at  $22^\circ\text{C}$  (1:20 soil:solution ratio).

Note:  $10\mu\text{g/mL} = 10\text{mg/L}$

The phosphorus fixation properties of soil may be described by the following PRI values:

PRI (mL/g)

- |    |          |                         |
|----|----------|-------------------------|
| a. | negative | desorbing (P leaching)  |
| b. | 0 - 2    | weakly adsorbing        |
| c. | 2 - 20   | moderately adsorbing    |
| d. | 20 - 100 | strongly adsorbing      |
| e. | >100     | very strongly adsorbing |



**Rick Staker**  
**Science Business Manager**  
**Natural Resources Chemistry**

28/01/2011

## CERTIFICATE OF ANALYSIS 108472

**Client:**

**Douglas Partners Perth**  
36 O'Malley St  
Osborne Park  
WA 6017

**Attention:** Sunthar Seenu

**Sample log in details:**

Your Reference:	<b><u>UCL 586, Hugget Drive, Dalwallina</u></b>
No. of samples:	2 Soils
Date samples received:	21/1/11
Date completed instructions received:	20/1/11
Location:	

**Analysis Details:**

Please refer to the following pages for results, methodology summary and quality control data.  
Samples were analysed as received from the client. Results relate specifically to the samples as received.  
Results are reported on a dry weight basis for solids and on an as received basis for other matrices.

***Please refer to the last page of this report for any comments relating to the results.***

**Report Details:**

Date results requested by:	28/01/11
Date of Preliminary Report:	Not issued
Issue Date:	28/01/11

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This document is issued in accordance with NATA's accreditation requirements.

Accredited for compliance with ISO/IEC 17025.

**Tests not covered by NATA are denoted with \*.**

**Results Approved By:**



Joshua Lim  
Operations Supervisor

MPL Reference: 108472  
Revision No: R 00

Miscellaneous Inorg - soil			
Our Reference:	UNITS	108472-1	108472-2
Your Reference	-----	TP3	TP7
Depth	-----	0.6M	0.6M
Date Sampled		18/01/2011	18/01/2011
Type of sample		soil	soil
Date prepared	-	27/1/11	27/1/11
Date analysed	-	27/1/11	27/1/11
pH 1:5 soil:water	pH Units	8.9	9.1
Electrical Conductivity soil	µS/cm	660	1,500

MPL Reference: 108472  
 Revision No: R 00



ESP/CEC*	UNITS	108472-1	108472-2
Our Reference:	-----	TP3	TP7
Your Reference	-----	0.6M	0.6M
Depth			
Date Sampled		18/01/2011	18/01/2011
Type of sample		soil	soil
Calcium	mg/kg	6,700	6,900
Potassium	mg/kg	330	460
Magnesium	mg/kg	1,500	2,000
Sodium	mg/kg	1,400	2,700
Exchangeable Ca*	meq/100g	33	35
Exchangeable K*	meq/100g	0.85	1.2
Exchangeable Mg*	meq/100g	13	17
Exchangeable Na*	meq/100g	6.2	12
Cation Exchange Capacity*	meq/100g	53	64
ESP*	%	12	18



Method ID	Methodology Summary
<b>WILAB.5A</b>	pH - Measured using pH meter and electrode in accordance with APHA 21st ED, 4500-H+.
<b>WILAB.5A</b>	Conductivity and Salinity - measured using a conductivity cell and dedicated meter, in accordance with APHA2510 21st ED and Rayment & Higginson.
<b>WILAB 17</b>	Metals in soil and water by ICP-OES.
<b>Metals.9</b>	Preparation of sample for CEC.

## Report Comments:

Australian Drinking Water Guidelines recommend that Thermotolerant Coliform & E.coli levels are less than 1cfu/100mL. The recommended maximums are taken from "Australian Drinking Water Guidelines", published by NHMRC& ARMC 2004.

Asbestos was analysed by Approved Identifier: Not applicable for this job  
Airborne fibres were analysed by Approved Counter: Not applicable for this job

INS: Insufficient sample for this test; NT: Not tested; PQL: Practical Quantitation Limit; <: Less than; >: Greater than  
RPD: Relative Percent Difference; NA: Test not required; LCS: Laboratory Control Sample; NR: Not requested  
NS: Not specified; NEPM: National Environmental Protection Measure  
DOL: Sample rejected due to particulate overload

## Quality Control Definitions

**Blank:** This is the component of the analytical signal which is not derived from the sample but from reagents, glassware etc, can be determined by processing solvents and reagents in exactly the same manner as for samples.

**Duplicate:** This is the complete duplicate analysis of a sample from the process batch. If possible, the sample selected should be one where the analyte concentration is easily measurable.

**Matrix Spike:** A portion of the sample is spiked with a known concentration of target analyte. The purpose of the matrix spike is to monitor the performance of the analytical method used and to determine whether matrix interferences exist.

**LCS (Laboratory Control Sample):** This comprises either a standard reference material or a control matrix (such as a blank sand or water) fortified with analytes representative of the analyte class. It is simply a check sample.

**Surrogate Spike:** Surrogates are known additions to each sample, blank, matrix spike and LCS in a batch, of compounds which are similar to the analyte of interest, however are not expected to be found in real samples.

## Laboratory Acceptance Criteria

*Duplicate sample and matrix spike recoveries may not be reported on smaller jobs, however were analysed at a frequency to meet or exceed NEPM requirements. All samples are tested in batches of 20. The duplicate sample RPD and matrix spike recoveries for the sample batch were within laboratory acceptance criteria.*

Duplicates: <5xPQL - any RPD is acceptable; >5xPQL - 0-50% RPD is acceptable.

Matrix Spike and LCS: Generally 70-130% for inorganics/metals; 60-140% for organics and 10-140% for SVOC and Speciated Phenols is acceptable.

Surrogates: 60-140% is acceptable for general organics and 10-140% for SVOC and Speciated Phenols.

Our Ref: GH/L058.21  
Job No: 20-11-189

12 April 2021

DevelopmentWA  
Locked Bag 5  
Perth BC WA 6849

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**Attention: Robert Fenn**

Dear Sir,

**2020 RDAP – DALWALLINU INDUSTRIAL SUBDIVISION (LOT 99 RAILWAY PDE)  
LIKELY DEVELOPMENT COSTS**

We take this opportunity to summarise the issues affecting delivery of the above project, and our assessment of the likely costs (or Order of Probable Costs – OPC) expected to be associated with this development. A copy of the proposed subdivision plan is included at **Attachment 1**.

The project entails the creation of 8 new industrial lots to the south of Huggett Drive. It is noted that DevelopmentWA has previously attempted to progress this development in 2015. A subdivision approval (WAPC ref.153314) was obtained which had 8 conditions that needed to be satisfied in order for the creation of titles. It would be expected that similar conditions would apply going forward. These conditions required the construction of new roads, provision of power and water connections to the new lots, and adequate filling of the land to ensure protection from flooding. There was also a condition requiring the construction of crossovers which we would recommend be removed or agreed with the Shire as not being required as crossovers are development dependent in relation to size and location.



**Figure 1 – Aerial Imagery of Project Site**

A drainage channel running parallel to Huggett Drive delineates the extent of existing development on the south side of that road. This channel conveys most of the stormwater runoff from the main townsite across to the holding dam at the eastern end of Huggett Drive. Two short cul-de-sacs (York Street and Reudavey Street) extend south off Huggett Drive and terminate at the drainage channel.

Observations as to the servicing of the site are as follows.

### 1. Stormwater Management

The existing drainage channel that runs along the northern boundary of the development site will need to be maintained. The volume of water conveyed by this channel means it is not feasible to pipe this drain. A suitably sized culvert will need to be constructed to allow the road to be constructed across the drain. For the purpose of this advice, it is assumed the culvert size previously proposed by Calibre is appropriate – this being twin 1500 (wide) x 1200 (high) box culverts.

The Shire is keen to see road pavements kerbed so that stormwater runoff can be captured and conveyed into its detention system for reuse. Ground levels are such that the new roads can be graded back towards the existing drainage channel, so it would be possible to use the road pavement as the stormwater conveyance channel. The use of pit and pipe infrastructure can therefore be limited to getting the stormwater off the road and into the main drainage channel.

The proposed road that will run east-west across the front of proposed lots 4 and 5 will grade to the east (away from the York Street extension), so runoff will need to be conveyed to the main drainage channel by other means. It is proposed to construct an off-shoot from the main open drain to connect to the proposed road. This channel would likely be temporary and need to be relocated as and when future subdivision occurs.



Figure 2 – Stormwater management

In Stage 1 (WAPC ref.153314), a drainage management strategy was prepared that required Lots to provide on-site detention in the form of a shallow basin or swale, prior to discharge through a lot connection to the open drain network at pre-development rates. The critical storm event was the 1 hour 10 year event with lot connections and restricted outlets installed for each lot. The detention basins were to be installed as part of the subsequent lot development. It would appear from aerial imagery, that no detention basin system has been enforced at development approval stage and that stormwater is likely directly connected to lot pits and that hardstand areas are flowing overland direct to the open drainage system.

Therefore, stormwater management within the proposed lots is likely to be rather informal, with runoff potentially allowed to ‘escape’ out onto the roads and into the town’s stormwater collection system. It would be possible to have building approvals include some requirement for the temporary detention of stormwater runoff (for example, to help ensure unnecessary sediment is not carried off the allotment) but based on the condition of the existing development, it is expected this would not be enforced. This approach again would need to be confirmed with the Shire as part of any drainage management plan.

Unfortunately, the area occupied by proposed lots 7 & 8 falls naturally (by more than 1.5m) to the north-east corner (and rear) of those lots. Future subdivision will see another lot created behind these lots. It will therefore be necessary to construct some form of stormwater conveyance along the rear of these lots (and proposed Lot 6) to allow stormwater to reach the roadway. It is assumed this conveyance will be in the form of the drainage swale that will sit within an easement through the affected lots. Alternatively this could be piped with lot connections to reduce land affected by drainage swales, but there would be a subsequent increase in costs, but is likely to be better maintained and provide less maintenance issues longer term.

The concept engineering design prepared by Calibre in 2015 also proposed to constructed cut-off drains to intercept water coming overland from areas upslope of the proposed lots, in particular behind proposed Lots 1-3. There is a corridor of land (unmade road reserve) approximately 50m wide between the rear of these lots and the railway embankment. It is suggested that a shallow swale should suffice to direct any overland runoff northwards towards the main drainage channel.

## **2. Sewerage Management**

At present, the industrial area east of the highway does not have access to the town’s formal sewerage collection system. Wastewater is treated on each allotment using some form of septic system. Safe ways to dispose of the treated effluent are required, particularly when the soil conditions do not favour direct infiltration.

GALT Geotechnics has previously undertaken a geotechnical assessment of the proposed development area (report ref.J1501145 002 R Rev0, dated Sep-2015) and its findings included some commentary on effluent disposal which is reproduced below

*In general, the clayey soils across the site are classed as Soil Category 5. Based on the results of the permeameter tests, we consider the clayey soils across the site are not suitable for on-site effluent disposal by absorption into the soil. A more detailed design process will be required (e.g. dripper sprays, disposal into sand pads or similar).*

Modern treatment systems (eg. *Ecomax*) can be constructed ‘above ground’ using suitable soils that allow for effluent to be disposed of by irrigation.

## **3. Water Supply**

The town’s water supply is fed from holding tanks located at the eastern end of Huggett Drive, and a DN300 distribution main running along Huggett Drive. Short DN150 water main extensions are located in the two cul-de-sacs. Further extension of the mains in York Street will service the proposed development.

Hydrants will be provided at regular intervals to ensure access to water is available for fire-fighting.

#### **4. Power Supply**

UPD has advised that a large transformer (probably 1000 kVa) exists on the south side of Huggett Drive that may have some reserve capacity. There is also a switching station and a spare high voltage cable running down York Street to the edge of the open drain, that would enable a transformer to be installed for this or future stages. If the usual Western Power assumed loading of 200 kVa per hectare was applied, the proposed development would require another 1000 kVa transformer. This would require a substation site to be created (3.6m x 3.6m), and it is suggested this be located on proposed Lots 1, 2, or 3. An Earth Potential Rise (EPR) investigation would be required to cover the new transformer site.

It should be noted that earthing of HV equipment can prove expensive, depending of the soil resistivity. The EPR study will provide an indication of how challenging this requirement may be.

#### **5. Access to telecommunications services**

Pit and pipe infrastructure will be installed to allow a telecommunication provider to haul cable in the future.

Other considerations associated with the proposed subdivision are thought to be as follows.

#### **6. Road Construction**

The form of the new road pavement will require careful consideration. The subgrade material is likely to have a low bearing capacity which will require a thicker pavement. Some movement of the constructed pavement could be expected, which could then result in cracking showing through into the road surface. This was the case with the residential works last carried out by DevelopmentWA in this townsite.

The GALT geotechnical investigation suggests the soils in this location do not move as much as the soils at the Strickland street residential site, rating then a Class M as opposed to Class H.

Asphalt is the preferred surface for the road pavement in an industrial area as it is more resilient in withstanding the turning and braking movements of larger commercial vehicles, but it is also more likely to fracture if there is any deflection in the underlying pavement. A spray seal is probably less likely to fracture if pavement deflections are not significant, but it can wear badly if not applied effectively.

Our advice on construction costs allows for asphalt surfacing as per Stage 1 requirements, but detailed design and discussions with the shire may determine that 2 coat sealing is preferred. Costs would not increase further if that was the case.

#### **7. Bulk Earthworks & Lot Classification (for building purposes)**

The report by GALT Geotechnics suggested that the site conditions warrant a M classification if no additional fill is placed on the proposed allotments. It is suggested this would be acceptable in terms of the construction of industrial buildings.

It is therefore proposed to keep bulk earthworks to a minimum, and simply ensure that lot levels allow stormwater runoff to make its way towards the roadway or the main open drainage channel. This means the created lots will not be particularly flat, with falls of typically a metre or more from front to back and side to side. It is expected that a purchaser may end up terracing within the lot to create flatter areas for buildings and/or pavement hardstands.

In Stage 1, to both minimise initial construction costs but also to reduce the impact of dust and erosion issues following clearing of the lots, it was agreed with the Shire and Landcorp only earthworks would be done to lots to get them above flood level requirements. This meant the majority of the lots were not cleared or earthworked. An alternative cost option has also been presented for this option if that is something that is to be considered again.

### 8. Vehicle Access

As proposed, the subdivision effectively comprises a no through road – and would present some problems in terms of larger truck configurations being able to turn around without having to enter one of the lots to do so.

When this subdivision proposal was last considered, it was proposed to construct unsealed roads beyond the extent of the subdivision to form a loop road behind proposed lots 6-8 and to extend York Street all the way down to the Dalwallinu-Kalannie Road – refer the sketch plan included at **Attachment 2**. Our assessment of the likely development costs makes provision for construction of both of these (unsealed) road pavements, though we note the loop road may be an unnecessary extra cost as NO THRU ROAD signage should be able to prevent vehicles turning into this short road. A temporary turnaround pavement at the road end would suffice to allow most vehicles to execute a U-turn. These unsealed roads are proposed only at 150mm thick gravel, given the road levels may still change with future stages.

The updated subdivision application should include a formal road reservation for the extension of York Street down to the Dalwallinu-Kalannie Road. It may also be prudent to show additional lots to avoid any issues with the clearing of vegetation beyond the immediate subdivision.

The current Brief from DevelopmentWA flags that the development will require RAV access and that an upgrading of Huggett Drive and its intersection with Great Northern Highway may be required. The previous engineer (Calibre) obtained advice from MRWA that the design should accommodate RAV7 vehicles as a minimum, but may potentially have to allow for RAV10 vehicles as these will be allowed to use Great Northern Hwy in the future. In simple terms, RAV7 vehicles can be up to 36.5m long (with a maximum mass of 108.5t) whereas RAV10 vehicles can be up to 53.5m long (max mass 148t). Vehicles greater than 40m in length currently required to be accompanied by a traffic escort warden (or pilot vehicle).

MRWA has yet to alter the category of vehicles permitted to access Greta Northern Hwy, so it remains the case that RAV7 configurations are the largest vehicles currently allowed.

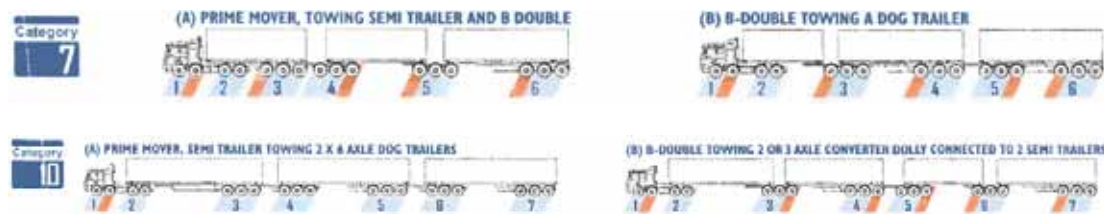


Figure 3 – Typical Restricted Vehicle Configurations

Preliminary design documentation was commenced by Calibre, which shows the intersection sweeps being widened considerably, resulting in a very large expanse of road pavement. These appear to accommodate RAV7 category vehicles. The 3<sup>rd</sup> of the intersection images below shows an intersection from the Wedgefield Industrial Park (in Port Hedland) which presumably accommodates the larger RAV10 movements. It can be seen that the through road also needs to

be widened at the intersection to allow these large vehicles to swing wide before starting their turn.

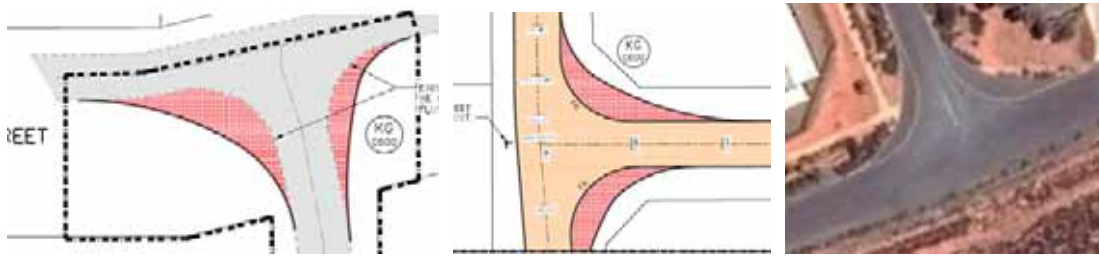


Figure 4 – Typical RAV Network Intersection Treatments

The intersection ‘wings’ are often surfaced in a different way – or line-marked – to discourage smaller vehicles from using the larger pavement area and taking the corner at a higher speed. In this instance, they could be constructed using concrete or red asphalt, or simply line-marked. Our advice on costs allows for the cheaper option of line-marking, as has been done at Wedgefield.

Extension of the RAV network into the subdivision can have implications for the thickness of the road pavement as well as the road geometry. However, we have not made any particular allowance to thicken the road pavement beyond normal standards. Whilst larger and heavier vehicles would potentially be using these roads axle loads don’t really change that much across the vehicle categories. The number of axles traversing the road pavement increase with the size of vehicle, but notionally fewer vehicles travel the roads if road trains can be used in lieu of individual semi-trailers.

## 9. Bushfire Risk

Whilst not raised in the context of the previous WAPC subdivision approval, consideration will need to be given to what measures might be required to mitigate the risk of bushfire. DevelopmentWA has previously commissioned a Bushfire Management Plan [BMP] which flags the need to clear vegetation beyond the extents of the proposed development. Hence our review of the likely development costs make provision for clearing 100m beyond the edge of the subdivision and/or any constructed works. No particular allowance is made for the management of this cleared area, either in terms of its initial ‘stabilisation or its ongoing maintenance as an area clear of vegetation.

A Clearing Permit would be required to clear vegetation to the west of proposed Lots 1-3 since that area falls outside the subdivision footprint. It is unclear whether approvals could be secured to clear all vegetation across to the highway, so it may be necessary to accommodate a higher BAL assessment for those lots. The 100m setback would actually extend west of the highway behind lot 1.

A secondary consideration in terms of bushfire risk is the manner by which persons can ‘escape’ an area under threat. It is usual to require two independent routes for vehicle egress. The BMP calls for a trafficable pavement (specifically a *temporary emergency accessway*) to be extended through to the Dalwallinu-Kalannie Road. We would have thought there might be an argument to avoid this requirement as any bushfire is likely to approach from the south, so emergency egress will likely be to the north (which the subdivision facilitates). However, this road link is already allowed for as a general means of egress for larger vehicle configurations.



## 10. Vehicle Crossovers

As flagged in our opening comments, the previous subdivision approval (WAPC ref.153314) called for the provision of vehicle crossovers. Given the proposed lots have large frontages, pre-determination of a suitable crossover location would seem to be unwarranted. Lots may also ultimately have two crossovers, so larger vehicles can loop through the property to reduce manoeuvring requirements. Our OPC advice does not allow for any crossovers, as this condition was not enforced during Stage 1 as is not expected to be required during Stage 2 given the likelihood the position can change.

## Indicative Costs

In terms of the likely development costs, we have attached our summary showing what we think these might be for all anticipated construction works to create the proposed eight lots, and the associated consultants' fees and the relevant charge that are expected to be levied by authorities. In summary, the indicative development costs are outlined below with a more detailed summary provided in **Attachment 3**.

Items	Indicative Costs – With Lot Clearing and some earthworks	Indicative Costs – With No Lot Clearing and minimal earthworks
Construction Costs	\$2,117,900	\$1,523,600
Development Fees and Charges	\$292,700	\$291,500
<b>Sub total</b>	<b>\$2,651,050</b>	<b>\$1,815,100</b>
GST	240,450	\$180,900
<b>Total</b>	<b>\$2,651,050</b>	<b>\$1,996,000</b>
<i>Cost per lot (inc GST)</i>	\$331,400	\$249,500

Particular assumptions to be conscious of are as follows.

- We have not allowed for any consequential filling of the proposed lots. Any surplus material arose from construction of the roads will be placed across proposed lots 4 & 5 to increase the current separation between the ground level and the open drain that borders these lots.

No allowance is made for the importation of any fill material, nor for any excavation in rock.

- We have allowed for the payment of headworks to the Water Corporation (for water supply), and also to the Shire (for stormwater management). We have assumed the Shire's drainage charges remain the same irrespective of whether the land use is residential or industrial.
- No allowance is made for any improvements or modifications to the existing intersection of Hugget Drive with Great Northern Hwy, nor for the intersection of the Dalwallinu-Kalannie Road with the Hwy.

Similarly, no allowance is made for any upgrading of the existing road pavement in the Dalwallinu-Kalannie Road.

- No allowance is made to provide street lighting for the section of road constructed between proposed Lot 3 and the Dalwallinu-Kalannie Road, including the intersection with that road.

- We note the previous subdivision approval (WAPC ref.153314) called for provision of a pre-works geotechnical report. We have assumed the existing GALT report will suffice, albeit does not cover the entire development area currently being contemplated. Whilst the Local Government is listed as the Clearing Authority, we also note there is a footnote which indicated that the Department of Health had certain expectations as to what the geotechnical investigation should cover.

It is understood the construction of the previous residential works was undertaken by Perth-based contractors, and it is presumed this will be necessary again for these works. As a result of various government stimulus packages, the civil construction industry is enjoying an excess of job opportunities which has in turn led to an increase in prices quoted for new works. Our advice on the likely costs is based on pricing returning to a more competitive price range in the likely construction timing of these works.

We also note there may be an opportunity to better leverage the construction contractor's mobilisation and other site costs by having the one contractor working on both the residential and LIA projects. A reduction of perhaps \$50,000 may be achieved should this prove possible.

We note the Shire may be in a position to undertake construction of the roadworks, and perhaps might be prepared to also action the required earthworks. This might result in some nominal reduction in costs, if only the accommodation and messing costs that a private contractor would presumably incur.

The nature of the existing soils means that construction during periods of wet weather may not be possible. Perth-based contractors are typically not experienced in working with wet or saturated cohesive soils, and will typically avoid doing so. This may mean that construction will need to be taken place at a particular time of year and even then, there remains a risk that works might be suspended if wet weather impacted the site unexpectedly. One of the recommendations in the geotechnical report also confirmed that it would not be prudent to attempt construction whilst the site soils are overly wet.

We trust the above information addresses DevelopmentWA's immediate need for advice as to the issues associated with delivery of this project. Please do not hesitate to contact us should you require further information.

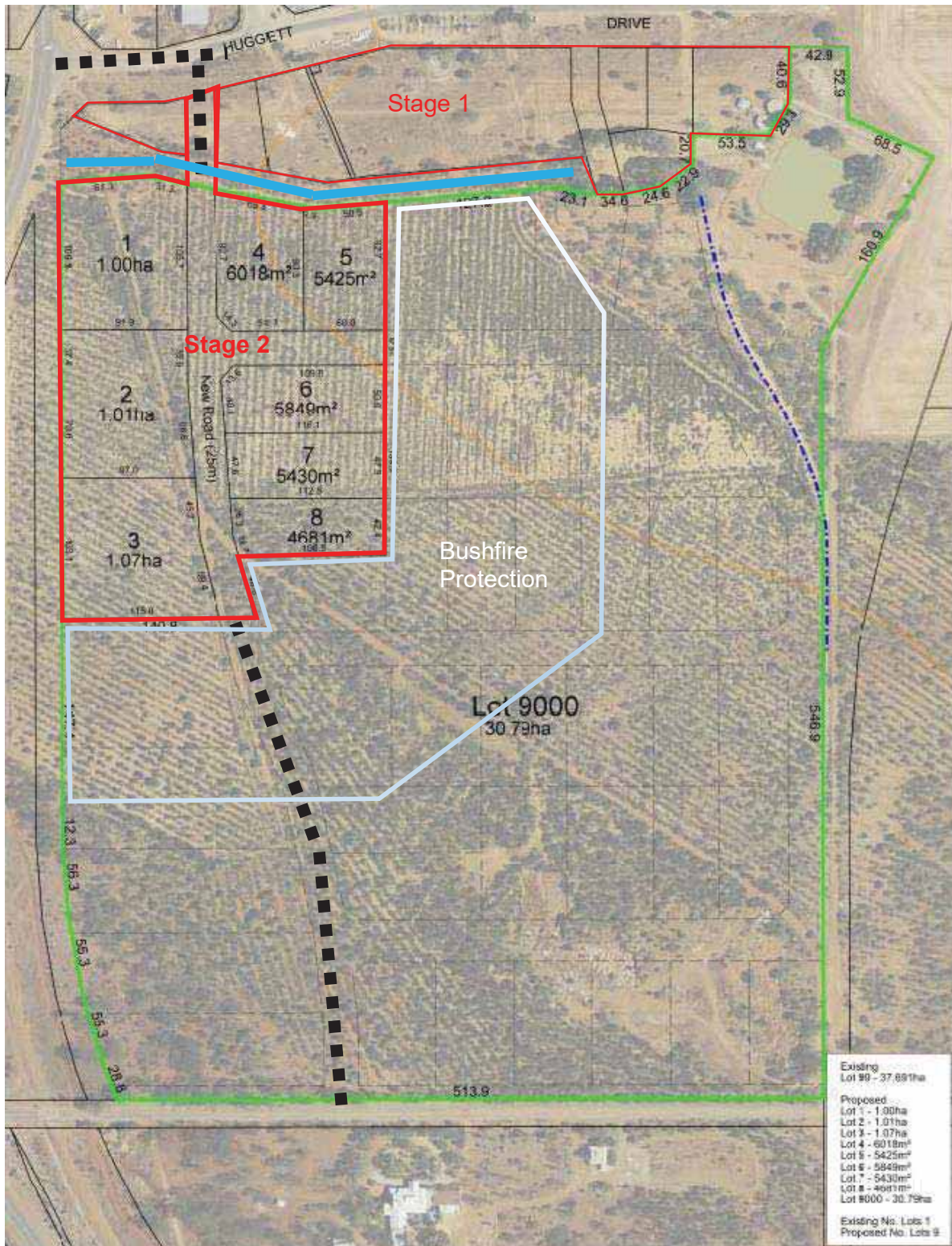
Yours faithfully



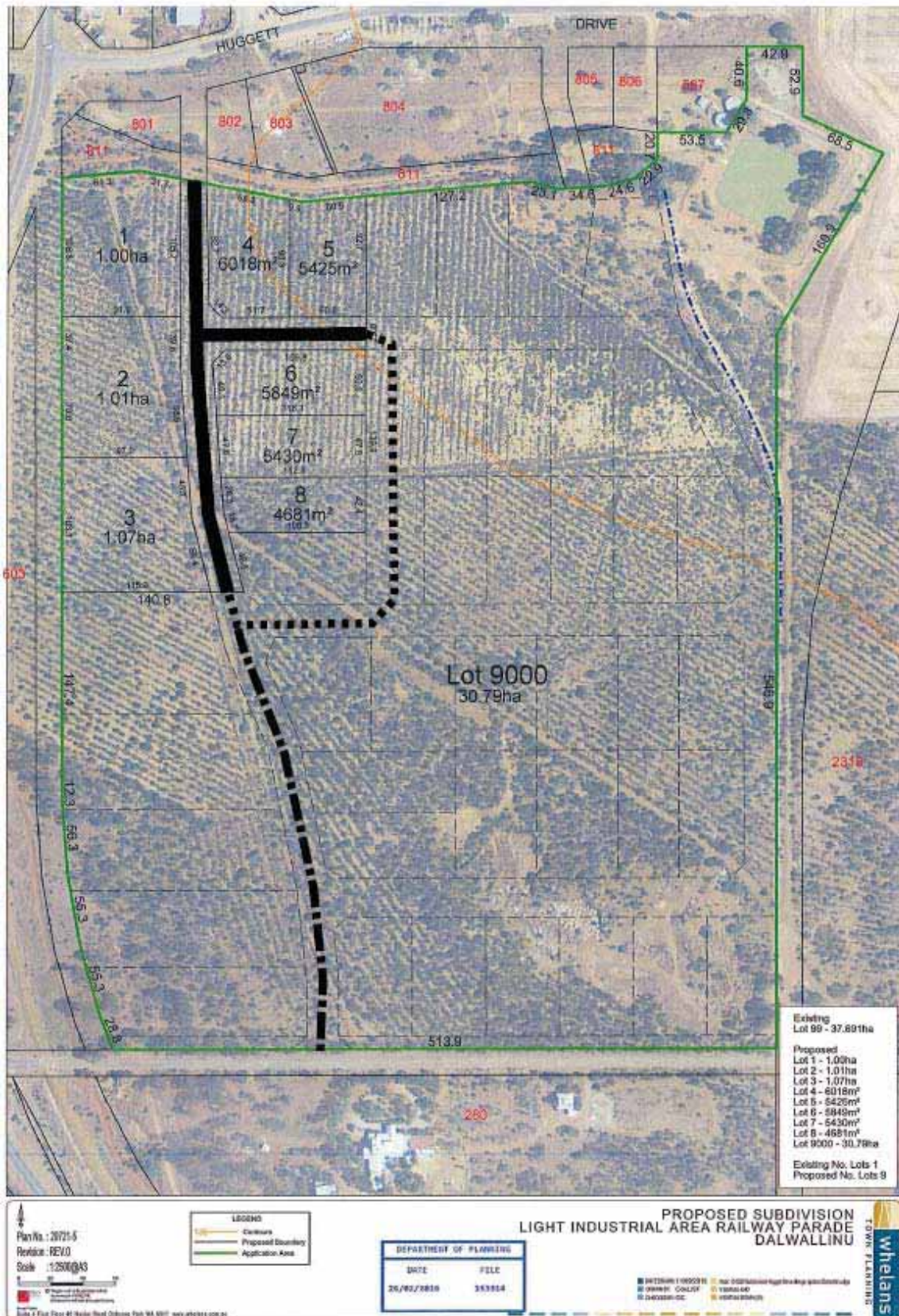
**GLENN HALL**  
**SENIOR CIVIL ENGINEER – PROJECTS**

## Attachment 1 – Subdivision Layout

**ATTACHMENT 3 – Dalwallinu Light Industrial (Stage 2)**



## Attachment 2 – Access Tracks



## Attachment 3 – Indicative Costs

Project **Dalwallinu LIA RDAP**  
Option **Stage 2**  
Number of Lots **8**  
Client **Development WA**  
Engineer **Glenn Hall / Brad Harris**  
Job Number **20-11-189**  
Date **9 April 2021**  
File Name **T046.21**  
Revision **A**  
Reference Document



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Mount Pleasant WA 6153  
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office@portereng.com.au  
www.portereng.com.au

<b>INDICATIVE DEVELOPMENT COSTS</b>	
<b>CONSTRUCTION COSTS</b>	<b>TOTAL COST</b>
Preliminaries	\$174,000
Earthworks and Siteworks	\$657,800
Sewer Reticulation	\$0
Water Reticulation	\$54,900
Drainage	\$165,000
Roads	\$445,450
Unsealed Road Extension	\$62,250
RAV Network - Intersection Upgrade	\$25,000
Fencing	No allowance
Underground Power	\$323,700
Communications	\$16,800
Gas Servicing	No allowance
Landscaping	No allowance
Construction Contingency (10% of construction)	\$193,000
<b>CONSTRUCTION TOTAL</b>	<b>\$2,117,900</b>
<b>DEVELOPMENT FEES AND CHARGES</b>	<b>TOTAL COST</b>
Water Corporation Standard Water Infrastructure Contribution	\$19,800
Local Authority Fees (includes stormwater levy)	\$16,400
Water Corporation Fees	\$1,300
Western Power Fees	\$57,400
Communications Headworks and Backhaul Charges	\$4,800
WAPC and Landgate Fees	\$5,500
Professional Fees	\$172,500
Administration Contingency (5% of fees/charges)	\$15,000
<b>DEVELOPMENT FEES AND CHARGES TOTAL</b>	<b>\$292,700</b>
<b>SUB TOTAL COSTS</b>	<b>\$2,410,600</b>
<b>GST</b>	<b>\$240,450</b>
<b>TOTAL COSTS</b>	<b>\$2,651,050</b>
<b>COST PER LOT (including GST)</b>	<b>\$331,400</b>

We stress that these costs are indicative only and are reflective of current construction costs in the area. No allowances have been made for property costs. The reader should be satisfied that the costs are appropriate for their purpose. Porter Consulting Engineers does not accept responsibility or liability for their interpretation or use.

Project **Dalwallinu LIA RDAP**  
 Option **Stage 2 - Minimal Lot works**  
 Number of Lots **8**  
 Client **Development WA**  
 Engineer **Glenn Hall / Brad Harris**  
 Job Number **20-11-189**  
 Date **9 April 2021**  
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<b>TOTAL COSTS</b>	<b>\$1,996,000</b>
<b>COST PER LOT (including GST)</b>	<b>\$249,500</b>

We stress that these costs are indicative only and are reflective of current construction costs in the area. No allowances have been made for property costs. The reader should be satisfied that the costs are appropriate for their purpose. Porter Consulting Engineers does not accept responsibility or liability for their interpretation or use.



## 9.2.2 Subdivision Application No 162915 – Lot 9002 Strickland Drive, Dalwallinu\*

<b>Report Date</b>	22 November 2022
<b>Applicant</b>	Taylor Burrell Barnett
<b>File Ref</b>	Property files – UCL
<b>Previous Meeting Reference</b>	Nil
<b>Prepared by</b>	Doug Burke, Manager Planning & Development Services
<b>Supervised by</b>	Jean Knight, Chief Executive Officer
<b>Disclosure of interest</b>	Nil
<b>Voting Requirements</b>	Simple Majority
<b>Attachments</b>	Supporting documentation

### Purpose of Report

The Western Australian Planning Commission (WAPC) has referred an application for the subdivision of the subject property to Council for comment (refer to attachment). Council has until 25 November 2022 to provide the WAPC with their response.

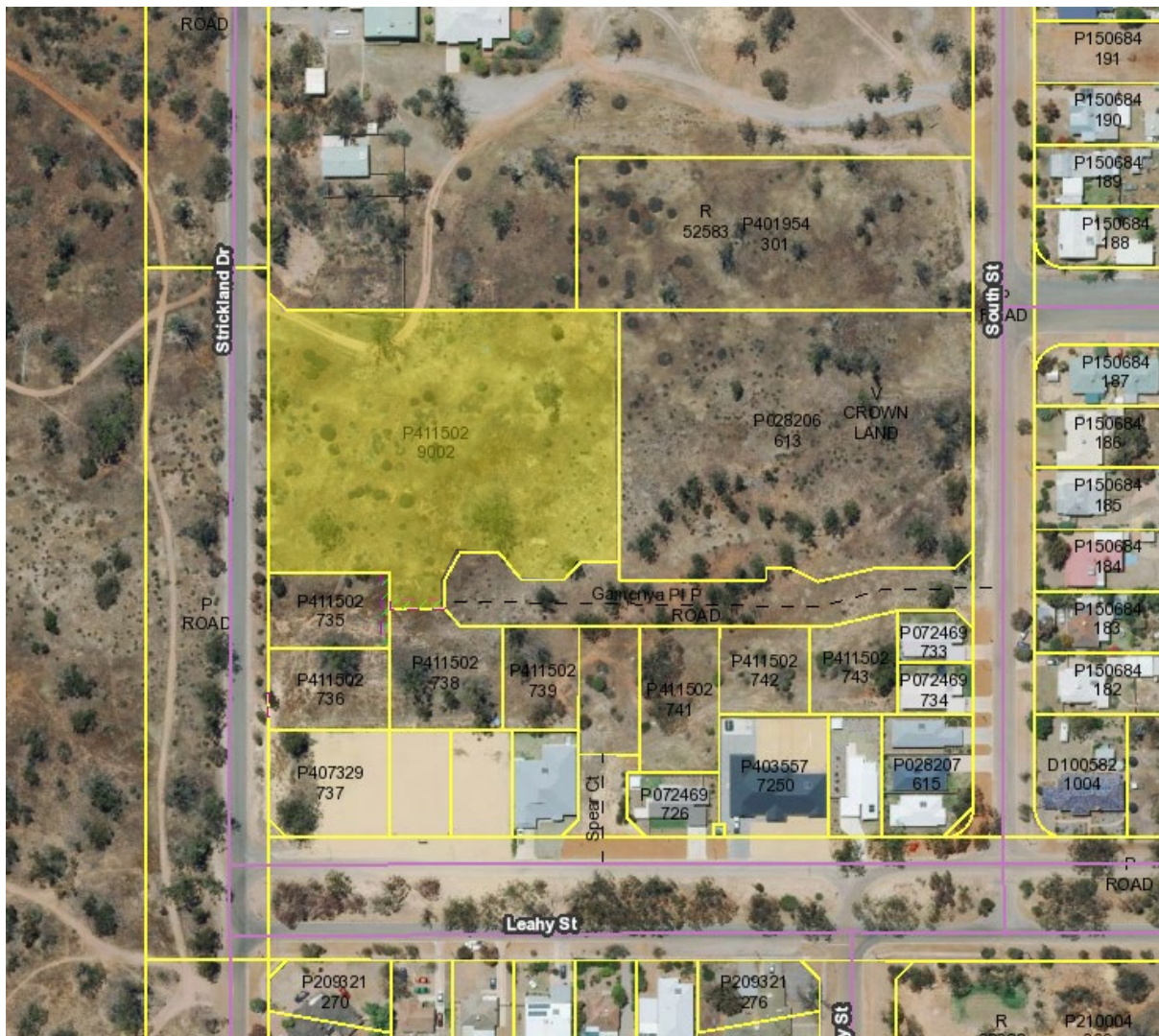
The recommendation is that the WAPC be advised that the Shire of Dalwallinu supports in principle the proposed freehold subdivision.

### Background

Subject Property:	Lot 9002 Strickland Drive, Dalwallinu
Land Use Zoning:	Residential
Property Owner:	Crown Reserve – DevelopmentWA
Applicant:	Toddville Prospecting P/L T/as Taylor Burrell Barnett
Consent Authority:	Western Australia Planning Commission
Proposed Development:	Creation of 9 lots and 1 road reserve
Value of Development:	N/A

Taylor Burrell Barnett has submitted a proposal to subdivide the balance allotment into 9 lots and 1 road reserve to intersect with Strickland Drive and Gamenya Place. The property is located on the western edge of the township adjacent to the hospital reserve and across the road from the 'town common'. The property is zoned 'Residential 10/30' under the Local Planning Scheme. The property has the ability to connect to the existing reticulated sewerage system.





Location of subject property (SLIP)

**Consultation**

Nil

**Legislative Implications**

State

*Planning and Development Act 2005*

*Shire of Dalwallinu Town Planning Scheme N° 2*

**Policy Implications**

Nil

**Financial Implications**

Nil

**Strategic Implications**

*The Dalwallinu Local Planning Strategy 2013.*

There is much written in the Strategy regarding the expansion of residential areas in Dalwallinu.



To paraphrase; the supply of residential, industrial, rural residential, commercial and other land must be monitored by the Shire on an on-going basis. Any shortfall of supply will either mean prices will rise unrealistically and detract from developers, and developers will establish in another district. Alternatively, some enterprises will just not happen. A glut, or over-supply, can have equally serious results by flooding the market and reducing prices whereby developers take a loss and will not invest in the Shire in the future.

Advised actions are to:

*Allow for opportunities to increase residential densities to capitalise on existing infrastructure.*

And

*Progress with the 'Hospital' subdivision.*

### **Site Inspection**

An inspection of the site has been undertaken.

### **Triple Bottom Line Assessment**

#### Economic implications

There are no known significant economic implications associated with this proposal.

#### Social implications

There are no known significant social implications associated with this proposal.

#### Environmental implications

There are no known significant environmental implications associated with this proposal.

### **Officer Comment**

The proposed subdivision will add 9 lots and a total area of 7,667m<sup>2</sup> to the Dalwallinu 'Residential' estate. The smallest block (Lot 4) will be 542m<sup>2</sup> whilst the largest block (Lot 7) will be 1,277m<sup>2</sup> in area. The average size will be 851m<sup>2</sup> in area.

Development on land zoned 'Residential' is permitted for single house and grouped dwellings. The State Planning Policy 7.3 (the R Codes) is the primary document for general development requirements.

The mainstay objective for this land use zoning is:

*'To provide for predominantly residential development with a variety of housing to meet the needs of different household types through the application of the Residential Design Codes of Western Australia.'*



## Officer Recommendation/Resolution

### **MOTION 10002**

Moved           Cr MM Harms  
Seconded       Cr KM McNeill

That Council endorse the proposed subdivision and direct the Chief Executive Officer to advise the Western Australian Planning Commission that there is no objection to the proposal for Lot 9002 Strickland Drive, Dalwallinu to be subdivided as per the plan of subdivision accompanying the Application No: 162915.

**CARRIED 8/0**



Our Ref: 22/083

3 October 2022

**Attention: Land Use Planning, Wheatbelt Region**

*Issued electronically via Department of Planning, Lands and Heritage E-Lodgement System*

Dear Sir/Madam

## **APPLICATION FOR FREEHOLD SUBDIVISION – Lot 9002 STRICKLAND DRIVE, DALWALLINU**

On behalf of our Client, DevelopmentWA, Taylor Burrell Barnett submits the enclosed Application for Approval of Freehold Subdivision to the Western Australian Planning Commission (WAPC) for consideration. In support of this application please find enclosed the following documentation (Attachments):

1. A copy of the Plan of Subdivision (refer Attachment 1);
2. A copy of the current Certificate of Titles (refer Attachment 2);
3. A copy of the signed Landowner Consent Form (refer Attachment 3); and
4. A copy of the Bushfire Management Plan (refer Attachment 4).

### **SUBJECT SITE**

Situated in the Wheatbelt town of Dalwallinu, the subject site is located approximately 500m west of the Town Centre. The land is positioned along the townsite's western boundary and is bound by Strickland Drive, the Dalwallinu District Hospital and various vacant landholdings.

The subject site for the subdivision proposal is Lot 9002 Strickland Drive and is located within the Shire of Dalwallinu municipality. The existing lot details for the proposal are as follows:

Table 1 – Lot Summary

Lot No.	Land Area (m <sup>2</sup> )	CT Vol/Fol	Plan No.	Ownership
9002	9,948	2927/947	DP411502	Western Australian Land Authority

Toddtville Prospecting Pty Ltd (ACN 008 735 153)  
ATF The Taylor & Burrell Unit Trust trading as Taylor Burrell Barnett (ABN 74 831 437 925)

**Office address:**  
Level 7  
160 St Georges Terrace  
Perth WA 6000

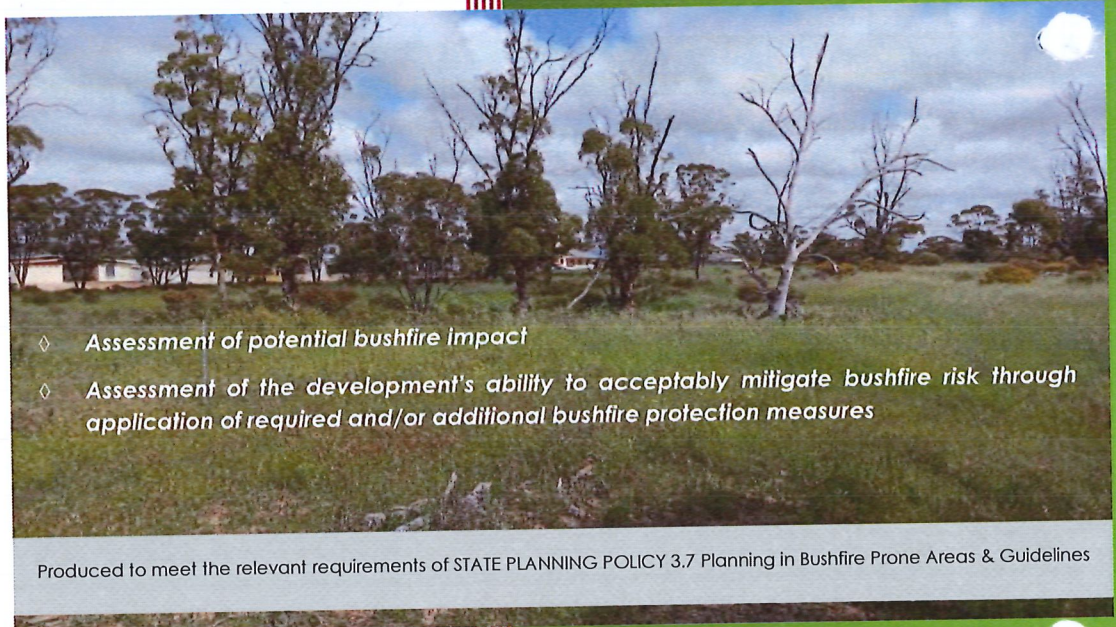
**Postal address:**  
PO Box 7130  
Cloisters Square  
Perth WA 6850

Doc ID: 22-083 DEVWA Dalwallinu Subdivision Application V1.0.docx Prepared By: ME Last Revised: 3/10/2022 **1**



**BUSHFIRE PRONE  
PLANNING**

# Bushfire Management Plan (BMP)



- ◇ *Assessment of potential bushfire impact*
- ◇ *Assessment of the development's ability to acceptably mitigate bushfire risk through application of required and/or additional bushfire protection measures*

Produced to meet the relevant requirements of STATE PLANNING POLICY 3.7 Planning in Bushfire Prone Areas & Guidelines

LANDCORP – Dalwallinu Residential, Lot 9002  
Strickland Drive, Dalwallinu

Shire of Dalwallinu

Subdivision Application

27 September 2022

Job Reference No: 15463e

**BPP GROUP PTY LTD T/A BUSHFIRE PRONE PLANNING**

ACN: 39 166 551 784 | ABN: 39 166 551 784

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VERSION HISTORY					
Version	Details				Date
1.0	Original				27 September 2022
-	-				
BMP (Master) Template v9.13					
DISTRIBUTION					
Destination		Version	No. Copies	Hard Copy	Electronic Copy
Person	Email				
Sharon Bowley	sharon.bowley@developmentwa.com.au	1.0	1	<input type="checkbox"/>	<input checked="" type="checkbox"/>
		-		<input type="checkbox"/>	<input type="checkbox"/>
<p><b>Limitations:</b> The protection measures that will be implemented based on information presented in this Bushfire Management Plan are minimum requirements and they do not guarantee that buildings or infrastructure will not be damaged in a bushfire, persons injured, or fatalities occur either on the subject site or off the site while evacuating.</p> <p>This is substantially due to the unpredictable nature and behaviour of fire and fire weather conditions. Additionally, the correct implementation of the required protection measures (including bushfire resistant construction) and any other required or recommended measures, will depend upon, among other things, the ongoing actions of the landowners and/or operators over which Bushfire Prone Planning has no control.</p> <p>All surveys, forecasts, projections and recommendations made in this report associated with the proposed development are made in good faith based on information available to Bushfire Prone Planning at the time. All maps included herein are indicative in nature and are not to be used for accurate calculations.</p> <p>Notwithstanding anything contained therein, Bushfire Prone Planning will not, except as the law may require, be liable for any loss or other consequences whether or not due to the negligence of their consultants, their servants or agents, arising out of the services provided by their consultants.</p> <p><b>Copyright © 2022 BPP Group Pty Ltd:</b> All intellectual property rights, including copyright, in format and proprietary content contained in documents created by Bushfire Prone Planning, remain the property of BPP Group Pty Ltd. Any use made of such format or content without the prior written approval of Bushfire Prone Planning, will constitute an infringement on the rights of the Company which reserves all legal rights and remedies in respect of any such infringement.</p>					

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## SUMMARY STATEMENTS

### THIS DOCUMENT – STATEMENT OF PURPOSE

#### The Bushfire Management Plan (BMP)

The BMP sets out the required package of bushfire protection measures to lessen the risks associated with a bushfire event. It establishes the responsibilities to implement and maintain these measures.

The BMP also identifies the potential for any negative impact on any environmental, biodiversity and conservation values that may result from the application of bushfire protection measures or that may limit their implementation.

#### Risks Associated with Bushfire Events

The relevant risks are the potential for loss of life, injury, or destroyed or damaged assets which results in personal loss and economic loss. For a given site, the level of that risk to persons and assets (the exposed elements) is a function of the potential threat levels generated by the bushfire hazard, and the level of exposure and vulnerability of the at risk elements to the threats.

#### Bushfire Protection Measures

The required package of protection measures is established by *State Planning Policy 3.7 Planning in Bushfire Prone Areas (SPP 3.7)*, its associated *Guidelines* and any other relevant guidelines or position statements published by the Department of Planning, Lands and Heritage. These measures are limited to those considered by the WA planning authorities as necessary to be addressed for the purpose of land use planning. They do not encompass all available bushfire protection measures as many are not directly relevant to the planning approval stage. For example:

- Protection measures to reduce the vulnerability of buildings to bushfire threats is primarily dealt with at the building application stage. They are implemented through the process of applying the Building Code of Australia (Volumes 1 and 2 of the national Construction Code) in accordance with WA building legislation and the application of construction requirements based on a building's level of exposure - determined as a Bushfire Attack Level (BAL) rating); or
- Protection measures to reduce the threat levels of consequential fire (ignited by bushfire and involving combustible materials surrounding and within buildings) and measures to reduce the exposure and vulnerability of elements at risk exposed to consequential fire, are not specifically considered.

The package of required bushfire protection measures established by the Guidelines includes:

- The requirements of the bushfire protection criteria which consist of:
  - Element 1: Location (addresses threat levels).
  - Element 2: Siting and Design of Development (addresses exposure levels of buildings).
  - Element 3: Vehicular Access (addresses exposure and vulnerability levels of persons).
  - Element 4: Water (addresses vulnerability levels of buildings).
  - Element 5: Vulnerable Tourism Land Uses (addresses exposure and vulnerability as per Elements 1-4 but in use specific ways and with additional considerations of persons exposure and vulnerability).
- The requirement to develop Bushfire Emergency Plans / Information for 'vulnerable' land uses for persons to prepare, respond and recover from a bushfire event (this addresses vulnerability levels).
- The requirement to assess bushfire risk and incorporate relevant protection measures into the site emergency plans for 'high risk' land uses (this addresses threat, exposure and vulnerability levels).

#### Compliance of the Proposed Development or Use with SPP 3.7 Requirements

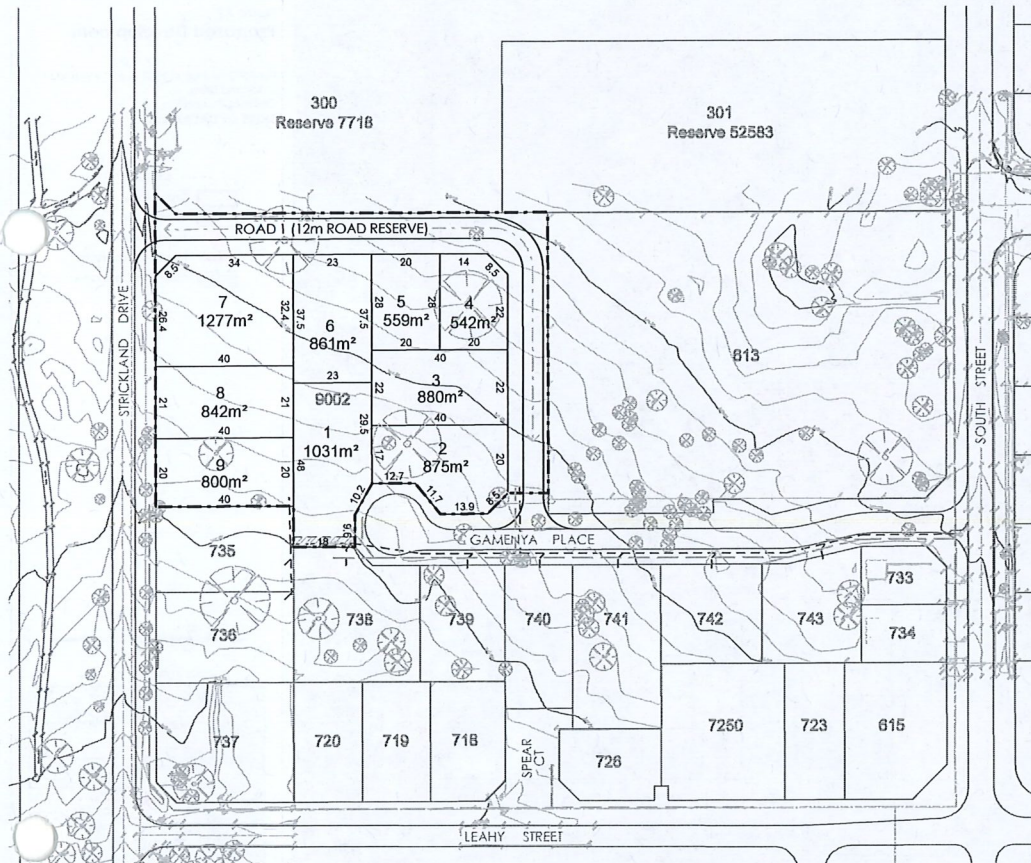
The BMP assesses the capacity of the proposed development or use to implement and maintain the required 'acceptable' solutions and any additionally recommended bushfire protection measures - or its capacity to satisfy the policy intent through the justified application of additional bushfire protection measures as supportable 'alternative' solutions.

THE PROPOSED DEVELOPMENT/USE – BUSHFIRE PLANNING COMPLIANCE SUMMARY		
Environmental Considerations		Assessment Outcome
Will identified environmental, biodiversity and conservation values limit the full application of the required bushfire protection measures?		No
Will identified environmental, biodiversity and conservation values need to be managed in the implementation and maintenance of the bushfire protection measures - but not limit their application?		Possible (check)
Required Bushfire Protection Measures The Acceptable Solutions of the Bushfire Protection Criteria (Guidelines)		Assessment Outcome
Element	The Acceptable Solutions	
1: Location	A1.1 Development location	Fully Compliant
2: Siting and Design of Development	A2.1 Asset Protection Zone (APZ)	Fully Compliant
3: Vehicular Access	A3.1 Public roads	Fully Compliant
	A3.2a Multiple access routes	Fully Compliant
	A3.2b Emergency access way	N/A
	A3.3 Through-roads	N/A
	A3.4a Perimeter roads	N/A
	A3.4b Fire service access route	N/A
	A3.5 Battle-axe legs	N/A
	A3.6 Private driveways	N/A
4: Water	A4.1 Identification of future water supply	Fully Compliant
	A4.2 Provision of water for firefighting purposes	Fully Compliant
<b>The Methodology Applied to the Development of an Alternative Solution</b> The necessity for an alternative solution is in response to non-compliance with the applicable acceptable solutions.		<b>Applied</b>
Merit based assessment - identified as 'minor' development (Guidelines s4.5.3)		No

## 1 PROPOSAL DETAILS AND THE BUSHFIRE MANAGEMENT PLAN

### 1.1 The Proposed Development/Use Details, Plans and Maps

<b>The Proposal's Planning Stage</b> For which certain bushfire planning documents are required to accompany the planning application.		Subdivision Application
<b>Total Area of Subject Lot/Site</b>		7667m <sup>2</sup>
<b>Number of Additional Lots Created</b>		Existing lot(s) = 1 / Proposed lot(s) = 9
<b>Primary Proposed Construction</b>	<b>Type(s)</b>	New Building(s)
	<b>NCC Classification</b>	Class 1a (house)
<b>Specific 'Bushfire Planning' Land Use Type</b> When applicable, this classification establishes a requirement to conduct assessments and develop documents that are additional to this Bushfire Management Plan.		N/A
<b>Description of the Proposed Development/Use</b>		
<p>The proposed subdivision is located at Lot 9002 Strickland Drive, Dalwallinu located within the Shire of Dalwallinu. Situated on the north side of Leahy Street and east of Strickland Drive the site sits within a Residential (R10/30) Zone (Shire of Dalwallinu Local Planning Scheme 2).</p> <p>The existing Lot 9002 is proposed as a 9 Lot residential subdivision, with Lots ranging from 542 to 1277m<sup>2</sup> in size. The total lot size is 7667m<sup>2</sup> Nine lots have been identified numerically 1 through to 9 (refer Figure 1.2).</p> <p>Environmental mapping indicates that there may be vulnerable fauna existing across Lots 6 and 7. This will need to be confirmed with the relevant authorities.</p>		
<b>Description of Planned Staged Development and the Management of Potential Bushfire Planning Issues</b>		
Site specific assessment to address the bushfire risk that considers the future potential bushfire impact on the subdivision proposal.		



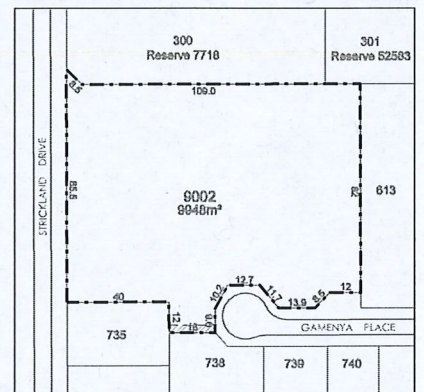
**LEGEND**

- TOTAL APPLICATION AREA (0.9940ha)
- EXISTING 0.2M CONTOURS (0.0054ha)
- SEWER EASEMENT 167 Reg 33(A)
- EXISTING SEWER LINE
- EXISTING WATER PIPE

**LOT SUMMARY**

LOT YIELD			LOT AREA	
Size	No. Lots	% Total Lots	Average Size	% of Total Area
499m <sup>2</sup> - 549m <sup>2</sup>	1	11.11%	542m <sup>2</sup>	7.07%
550m <sup>2</sup> - 599m <sup>2</sup>	1	11.11%	559m <sup>2</sup>	7.29%
800m <sup>2</sup> - 899m <sup>2</sup>	5	55.56%	851m <sup>2</sup>	55.54%
1000m <sup>2</sup> - 1499m <sup>2</sup>	2	22.22%	1154m <sup>2</sup>	30.10%
Total Number of Lots			9	
Minimum Lot Size 542m <sup>2</sup>			Average Lot Size 851m <sup>2</sup>	
Maximum Lot Size 1277m <sup>2</sup>			Total Lot Area 7687m <sup>2</sup>	

**OVERALL SUBDIVISION**



**Plan of Subdivision - Freehold**  
 LOT 9002 STRICKLAND DRIVE, DALWALLINU

A Development WA Project

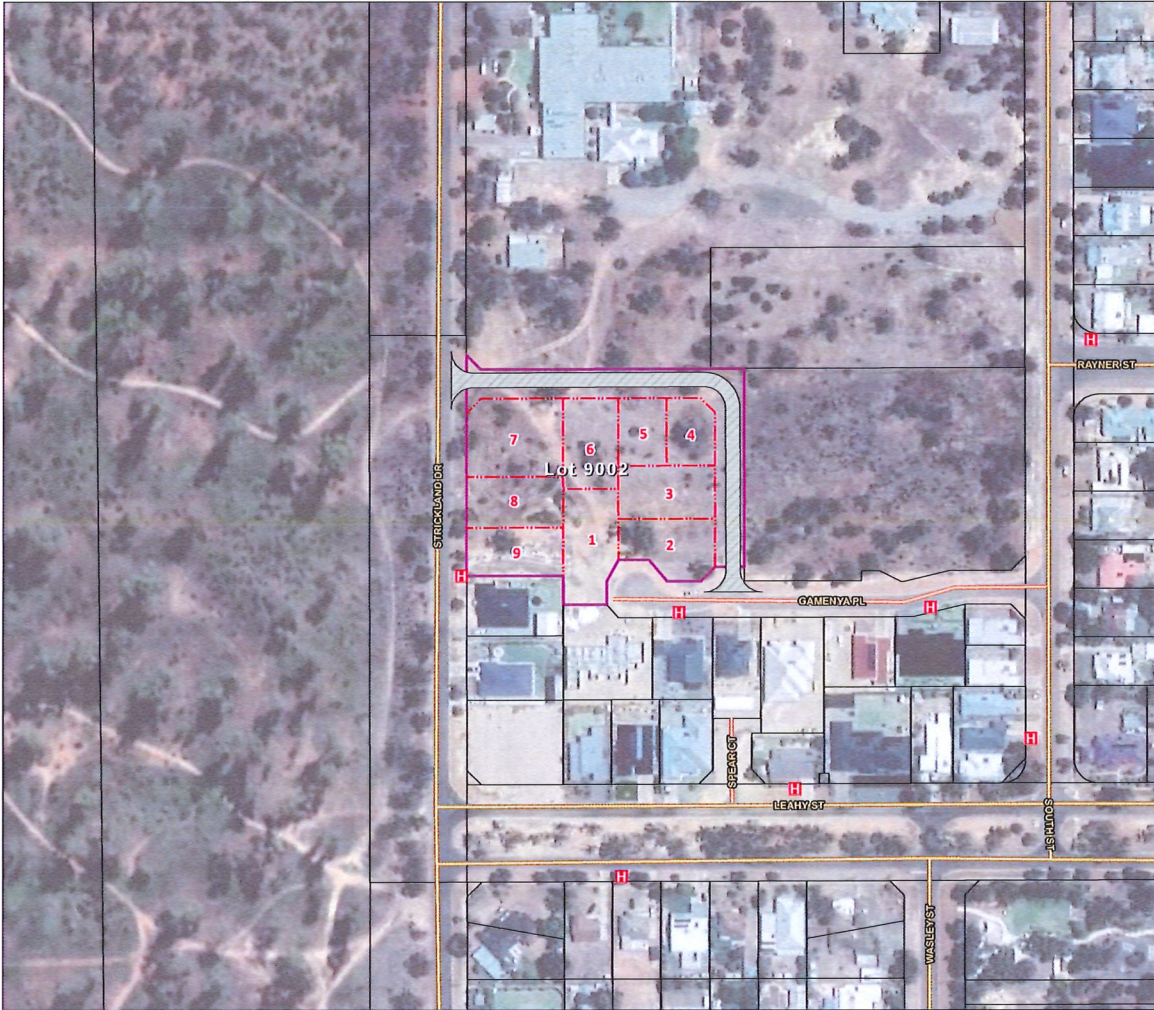
**DRAFT**

plan: 22/083/001  
 date: 8/09/2022  
 scale: 1:1,500@A4 | 1:750@A2  
 grid: MGA50  
 aerial: n/a

designed: Taylor Burrell Barnett Town Planning & Design  
 ME  
 checked: Taylor Burrell Barnett Town Planning & Design  
 ME  
 drawn: Taylor Burrell Barnett Town Planning & Design  
 MH



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**Figure 1.2  
Proposed Development**

Lot 9002 on Plan 411502, Area : 9,948 sq m  
Strickland Drive,  
DALWALLINU 6409  
SHIRE OF DALWALLINU

**LEGEND**

- Subject Site
- Other Lots
- H Hydrant
- Proposed Subdivision
- Proposed Carriageway

0 20 40 60 80  
Metres

**LOCALITY**

Aerial Imagery : Google / Landgate

Coordinates System: GDA 1974 MGA Zone 50  
Projection: Universal Transverse Mercator Units: Metre  
Map compiled by: Ian Ross 29/09/2022  
Map updated by: Ian Ross 29/09/2022  
A3 Scale: 1:1,500

Disclaimer and Limitation: This map has been prepared for bushfire management planning purposes only. All depicted areas, contours and any dimensions shown are subject to survey. Bushfire Planning does not guarantee that this map is without flaw of any kind and disclaims all liability for any errors, loss or other consequences arising from relying on any information depicted.  
Map Document Path / Name: E:\Projects\Jobs\2015\15463 LandCorp Varkou\15463r - Dalwallinu Residential (RMP) - Aug 2022\Mapping\MOID\15463r\_Fig 1-2\_DEV Dalwallinu\_Res1.mxd

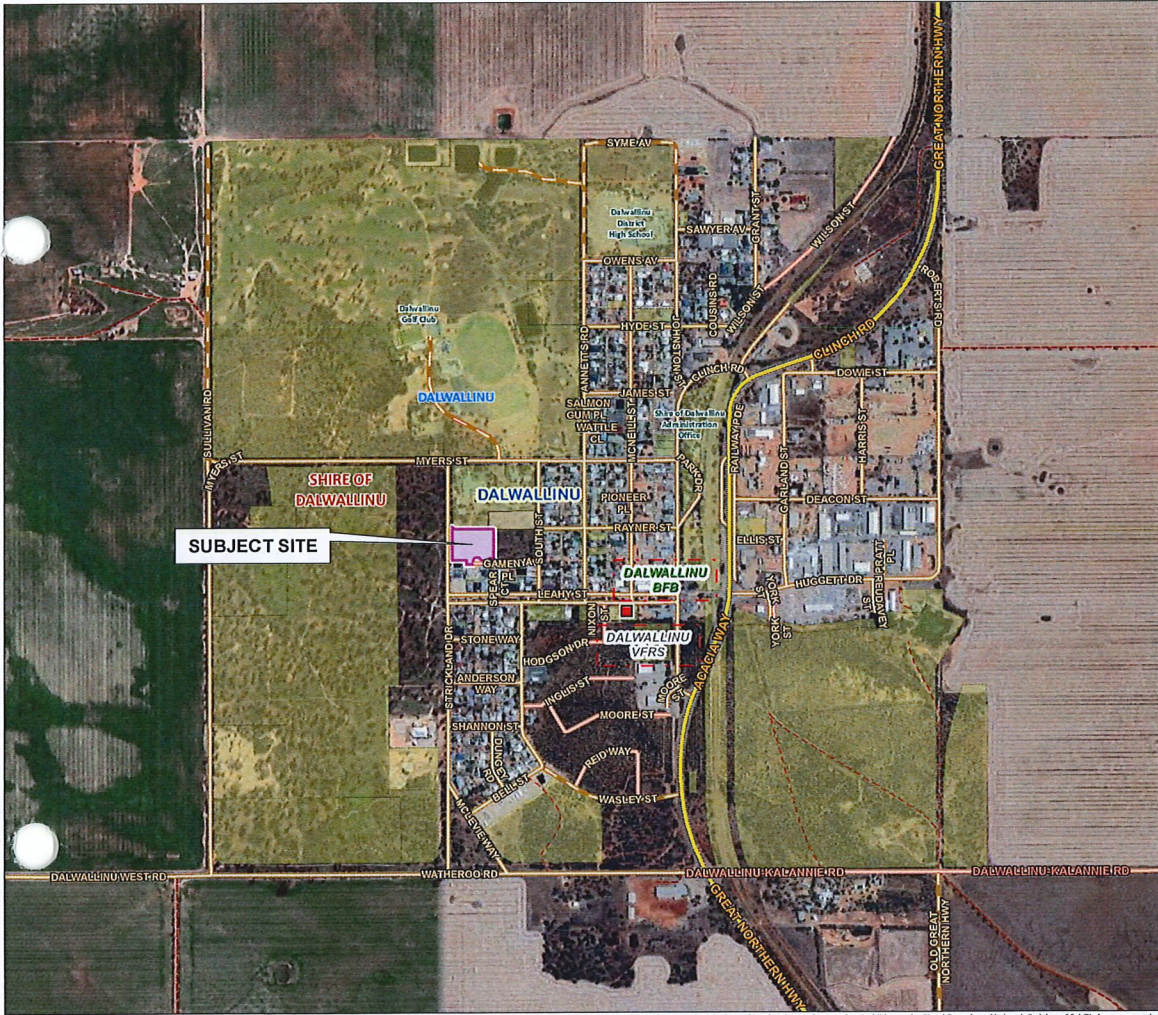
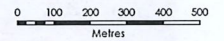


Figure 1.3  
Location Plan

Lot 9002 on Plan 411502, Area : 9,948 sq m  
Strickland Drive,  
DALWALLINU 6609  
SHIRE OF DALWALLINU

- LEGEND -----
- Subject Site
  - Bush Fire Brigade
  - Volunteer Fire & Rescue Service
  - Proposed Carriageway
- Reserves**
- Reserves
- Legislated Lands and Waters**
- Nature Reserve



Aerial Imagery : Google / Landgate

Coordinate System: GDA 1994 MGA Zone 50  
Projection: Universal Transverse Mercator Units: Metre  
Map compiled by Ian Frow 29/09/2022  
Map updated by Ian Frow 29/09/2022  
A3 Scale: 1:10,000

Disclaimer and Limitation: This map has been prepared for bushfire management planning purposes only. All depicted areas, contours and any dimensions shown are subject to survey. Bushfire From Planning does not guarantee that this map is without fault of any kind and disclaims all liability for any error, loss or other consequence arising from relying on any information depicted.

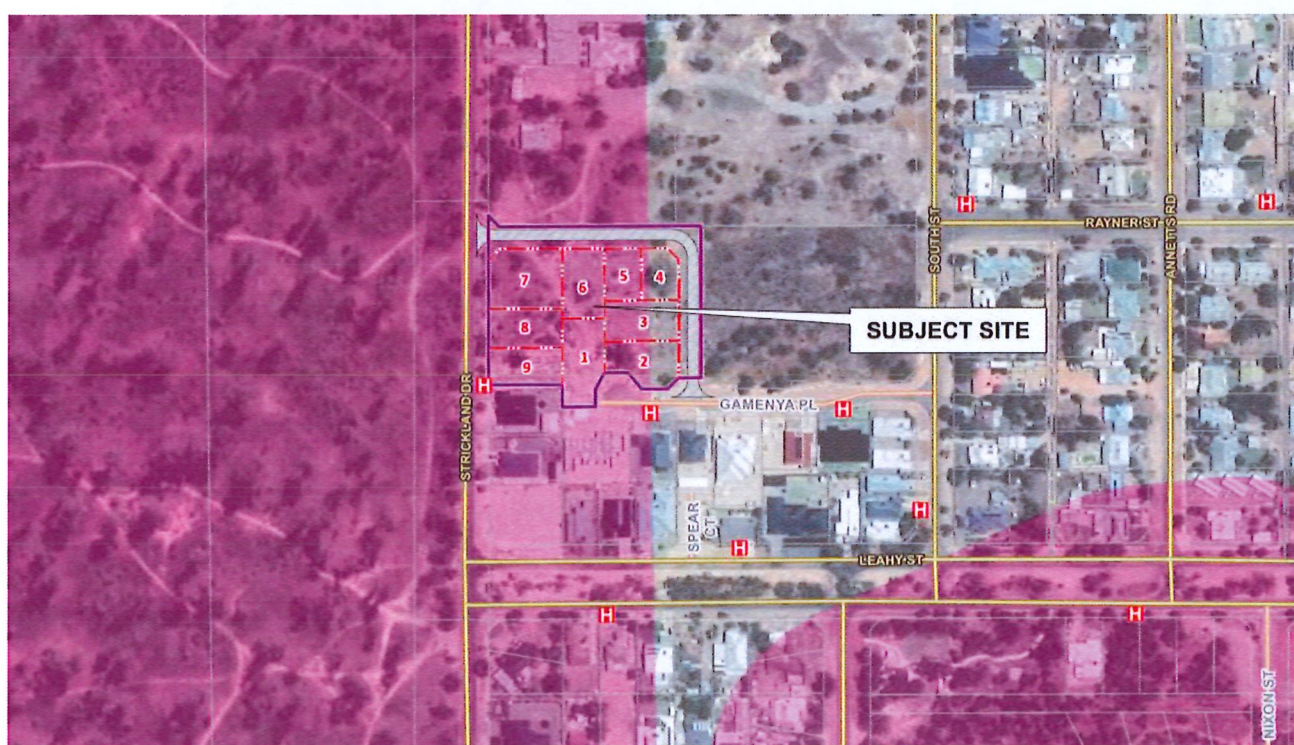
WHERE SPP 3.7 AND THE GUIDELINES ARE TO APPLY – DESIGNATED BUSHFIRE PRONE AREAS

All higher order strategic planning documents, strategic planning proposals, subdivisions and development applications located in designated bushfire prone areas need to address SPP 3.7 and its supporting Guidelines. This also applies where an area is not yet designated as bushfire prone but is proposed to be developed in a way that introduces a bushfire hazard.

For development applications where only part of a lot is designated as bushfire prone and the proposed development footprint is wholly outside of the designated area, the development application will not need to address SPP 3.7 or the Guidelines. (Guidelines DPLH 2021 v1.4, s1.2).

For subdivision applications, if all the proposed lots have a BAL-LOW indicated, a BMP is not required. (Guidelines DPLH 2021 v1.4, s5.3.1).

Figure 1.4: Extract from Map of Bushfire Prone Areas (Office of Bushfire Risk Management, DFES)





## 1.2 The Bushfire Management Plan (BMP)

### 1.2.1 Commissioning and Purpose

Landowner / proponent:	Sharon Bowley
Bushfire Prone Planning commissioned to produce the BMP by:	Development Western Australia
Purpose of the BMP:	To apply the requirements established by State Planning Policy 3.7: Planning in Bushfire Prone Areas (SPP 3.7) and accompany the subdivision application
BMP to be submitted to:	WA Planning Commission (WAPC)

### 1.2.2 Existing Documents with Implications for Development of this BMP

This section identifies any known assessments, reports or plans that have been conducted and prepared previously, or are being prepared concurrently, and are relevant to the subject site and the proposal/application. They potentially have implications for the assessment of bushfire threats and the implementation of the protection measures that are dealt with in the Bushfire Management Plan.

Table 1.4: Existing documents that may impact threat assessments and protection measure development.

EXISTING RELEVANT DOCUMENTS			
Existing Document	Relevant to the Proposal and the BMP	Copy Provided by Proponent / Developer	Title
Structure Plan	No	No	
Implications for the BMP:			
Bushfire Management Plan	Yes	Yes	15463e Landcorp Dalwallinu Residential (BMP) v1.4 Final – (Prepared by Bushfire Prone Planning – Dated February 2016
Implications for the BMP: Application has expired – Revised Bushfire Management Plan required to account for changes in Standards, State Planning Policies and associated Guidelines.			
Bushfire Emergency Plan or Information	No	No	
Implications for the BMP:			
Bushfire Risk – Assessment and Management Report	No	No	
Implications for the BMP:			
Environmental Asset or Vegetation Survey	No	No	
Implications for the BMP:			
Landscaping (Revegetation) Plan	No	No	
Implications for the BMP:			

## 2 ENVIRONMENTAL CONSERVATION (DESKTOP ASSESSMENT)

**Important:** This 'desktop' assessment must not be considered as a replacement for a full Environmental Impact Assessment. It is a summary of potential environmental values at the subject site, inferred from information contained in listed datasets and/or reports, which are only current to the date of last modification.

These data sources must be considered indicative where the subject site has not previously received a site-specific environmental assessment by an appropriate professional.

Many bushfire prone areas also have high biodiversity values. Consideration of environmental priorities within the boundaries of the land being developed can avoid excessive or unnecessary modification or clearing of vegetation. Approval processes (and exemptions) apply at both Commonwealth and State levels.

Any 'modification' or 'clearing' of vegetation to reduce bushfire risk is considered 'clearing' under the **Environmental Protection Act 1986** (EP Act) and requires a clearing permit under the **Environmental Protection (Clearing of Native Vegetation) Regulations 2004** (Clearing Regulations) – unless for an exempt purpose.

Clearing native vegetation is an offence, unless done under a clearing permit or the clearing is for an exempt purpose. Exemptions are contained in the EP Act or are prescribed in the Clearing Regulations (note: these do not apply in environmentally sensitive areas).

The **Department of Water and Environmental Regulation** (DWER) is responsible for issuing 'clearing' permits and the framework for the regulation of clearing. Approvals under other legislation, from other agencies, may also be required, dependent on the type of flora or fauna present.

**Local Planning Policy or Local Biodiversity Strategy:** Natural areas that are not protected by the above Act and Regulation (or any other National or State Acts) may be protected by a local planning policy or local biodiversity strategy. Permission from the local government will be required for any modification or removal of native vegetation in these Local Natural Areas (LNA's). Refer to the relevant local government for detail.

For further Information refer to Guidelines v1.4, the Bushfire and Vegetation Factsheet - WAPC, Dec 2021 and <https://www.der.wa.gov.au/our-work/clearing-permits>

### 2.1 Existing Vegetation on Private Land

#### 2.1.1 Declared Environmentally Sensitive Areas (ESA)

Table 2.1: Identification of relevant ESA.

IDENTIFICATION OF ESA							
ESA Class	Relevant to Proposal	Influence on Bushfire Threat Levels and / or Application of Bushfire Protection Measures	Relevant Dataset	Information Source(s) Applied to Identification of Relevant Vegetation			Further Action Required
				Dataset	Landowner or Developer	Environmental Asset or Vegetation Survey	
Wetlands and their 50m Buffer (Ramsar, conservation category and nationally important)	No	No	DBCA-010 and 011, 019, 040, 043, 044	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	None
Bush Forever	No	No	DPLH-022, SPP 2.8	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	None
Threatened and Priority Flora + 50m Continuous Buffer	No	No	DBCA-036	Restricted Scale of	<input type="checkbox"/>	<input type="checkbox"/>	None

Threatened Ecological Community	No	No	DBCA-038	Data Available (security)	<input type="checkbox"/>	<input type="checkbox"/>	Confirm with relevant agency
Heritage Areas National / World	No	No	Relevant register or mapping	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	None
Environmental Protection (Western Swamp Tortoise) Policy 2002	No	No	DWER-062	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	None

## 2.1.2 Locally Significant Conservation Areas – Local Natural Areas (LNA)

Table 2.2: Identification of locally significant conservation areas.

IDENTIFICATION OF LNA							
Land with Environmental, Biodiversity and Conservation Values	Relevant to Proposal	Influence on Bushfire Threat Levels and / or Application of Bushfire Protection Measures	Relevant Dataset	Information Source(s) Applied to Identification of Relevant Vegetation			Further Action Required
				Dataset	Landowner or Developer	Environmental Asset or Vegetation Survey	
Native Vegetation / Remnant Vegetation	No	No		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	None
Riparian Zones	No	No		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	None
Foreshore Areas	No	No		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	None
Habitat Vegetation and Wildlife Corridors (Declared Rare Fauna – refer Figure 2.1)	Possible	Possible		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Confirm with relevant agency



Figure 2.1  
Environmental Considerations

Lot 9002 on Plan 411502, Area : 9,948 sq m  
Strickland Drive,  
DALWALLINU 6609  
SHIRE OF DALWALLINU

- LEGEND -----
- Subject Site
  - Other Lots
  - H Hydrant
  - Proposed Subdivision
  - Proposed Carriageway
- Reserves**
- Reserves
- Legislated Lands and Waters**
- Nature Reserve
- Environmentally Sensitive Areas**
- Declared Rare Fauna

0 20 40 60 80 100  
Metres

----- LOCALITY -----



Aerial Imagery : Google / Landgate

Coordinate System: GDA 1974 MGA Zone 50  
Projection: Universal Transverse Mercator UTM Metric  
Map compiled by Ian Ross 29/01/2022  
Map updated by Ian Ross 29/01/2022  
At Scale: 1:2,500

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Map Document Path / Name: K:\Projects\Jobs\2015\15463 LandCorp Varokou\15463a - Dalwallinu Residential (RMF) - Aug 2022\Mapping\MXD\15463E\_Fig 2-1\_ENV Dalwallinu\_Resid.mxd

## 2.2 Existing Vegetation on Public Land

Table 2.4: Identification of vegetation on public land with environmental, biodiversity and conservation values.

IDENTIFICATION OF PROTECTED VEGETATION ON PUBLIC LAND							
Land with Environmental, Biodiversity, Conservation and Social Values	Relevant to Proposal	Influence on Bushfire Threat Levels and / or Application of Bushfire Protection Measures	Relevant Dataset	Information Source(s) Applied to Identification of Relevant Vegetation			Further Action Required
				Dataset	Landowner or Developer	Environmental Asset or Vegetation Survey	
Legislated Lands (tenure includes national park/reserve, conservation park, crown reserve and state forest)	No	No	DBCA-011	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	None
Conservation Covenants	No	No	DPIRD-023	Only Available to Govt.	<input type="checkbox"/>	<input type="checkbox"/>	None
National World Heritage Areas	No	No	-	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	None
Designated Public Open Space	Unknown	Unknown	-	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Data not obtained - confirm with relevant agency

## 2.3 Planned Landscaping and/or Re-vegetation

Table 2.5: Identification of land subject to planned vegetation modification.

AREAS OF LAND PLANNED FOR RE-VEGETATION OR LANDSCAPING			
Land with Environmental, Biodiversity, Conservation and Social Values	Relevant to Proposal	Planned Vegetation Modification	Description
Riparian Zones	No	N/A	
Foreshore Areas	No	N/A	
Wetland Buffers	No	N/A	
Legislated Lands	No	N/A	
Public Open Space	No	N/A	
Road Verges	No	N/A	

## 2.4 Identified Requirement for Onsite Vegetation Modification or Removal

IDENTIFICATION OF POTENTIAL NATIVE VEGETATION MODIFICATION OR REMOVAL	
Has a requirement to modify or remove native vegetation to establish the required bushfire protection measures on the subject site been identified?	Yes
Comments: Vegetation on the proposed lots is currently grassland. Any removal or modification is subject to all applicable Environmental Survey Works and approval from the Local Government Authority.	
Is evidence provided (from relevant agencies, the environmental or planning consultant and/or the local government), that the required modification or removal of the vegetation can be achieved?	No
Comments: Not required	

IDENTIFIED AREAS OF LAND HERITAGE VALUE		
Land with Heritage Value	Relevant to Proposal	Description and Potential Impact on Implementation of Bushfire Protection Measures
Aboriginal Heritage Places (DPLH)	No	
National Heritage List - the West Kimberley (Dept. of Agriculture, water and the Environment)	No	

## 2.5 Implications for the Proposed Development and the BMP

Table 2.6: Consideration of the implications that identified protected areas of vegetation (i.e., those with environmental and subject to conservation) have for the development proposal and the BMP.

THE IMPLICATIONS FOR THE PROPOSED DEVELOPMENT (AND BMP) FROM THE IDENTIFIED 'PROTECTED' VEGETATION	
The Determination of Bushfire Threat Levels and the Exposure of at Risk Elements	Relevant to the BMP
The ability to reduce the potential bushfire impact on the development through modification or removal of vegetation is limited due to the existence of 'protected' areas of vegetation.	No
Comments: N/A	
The planned development will result in additional areas of bushfire prone vegetation (due to re-vegetation and/or landscaping) that will support fire and that may impact the development. This vegetation has been accounted for within the BMP.	No
Comments: Onsite vegetation will become managed vegetation with private property ownership of small lots.	
The Application of Design and/or Construction Responses to Limit Vegetation Modification or Removal	Relevant to the BMP
Modify the development location to reduce exposure by increasing separation distance.	Not required

Comments:	
Redesign development, structure plan or subdivision.	No
Comments:	
Reduction of lot yield where this can increase available separation distances.	Not required
Comments:	
Cluster development to limit modification or removal of vegetation.	No
Comments:	
Construct building(s) to the requirements corresponding to higher BAL ratings to reduce required separation distances.	No
Comments:	

### 3 BUSHFIRE ATTACK LEVEL (BAL) ASSESSMENT

#### BUSHFIRE ATTACK LEVELS (BAL) - UNDERSTANDING THE RESULTS

The transfer (flux/flow) of radiant heat from the bushfire to a receiving object is measured in kW/m<sup>2</sup>. The AS 3959:2018 BAL determination methodology establishes the ranges of radiant heat flux that correspond to each bushfire attack level. These are identified as BAL-LOW, BAL-12.5, BAL-19, BAL-29, BAL-40 and BAL-FZ.

The bushfire performance requirements for certain classes of buildings are established by the Building Code of Australia (Vol. 1 & 2 of the NCC). The BAL will establish the bushfire resistant construction requirements that are to apply in accordance with AS 3959:2018 - Construction of *buildings in bushfire prone areas* and the NASH Standard – *Steel framed construction in bushfire areas (NS 300 2021)*, whose solutions are deemed to satisfy the NCC bushfire performance requirements.

#### DETERMINED BAL RATINGS

A BAL Certificate can be issued for a determined BAL. A BAL can only be classed as 'determined' for an existing or future building/structure when:

1. It's final design and position on the lot are known and the stated separation distance from classified bushfire prone vegetation exists and can justifiably be expected to remain in perpetuity; or
2. It will always remain subject to the same BAL regardless of its design or position on the lot after accounting for any regulatory or enforceable building setbacks from lot boundaries as relevant and necessary (e.g., R-codes, restrictive covenants, defined building envelopes) or the retention of any existing classified vegetation either onsite or offsite.

If the BMP derives determined BAL(s), the BAL Certificate(s) required for submission with building applications can be provided, using the BMP as the assessment evidence.

#### INDICATIVE BAL RATINGS

A BAL Certificate cannot be issued for an indicative BAL. A BAL will be classed as 'indicative' for an existing or future building/structure when the required conditions to derive a determined BAL are not met.

This class of BAL rating indicates what BAL(s) could be achieved and the conditions that need to be met are stated.

Converting the indicative BAL into a determined BAL is conditional upon the currently unconfirmed variable(s) being confirmed by a subsequent assessment and evidential documentation. These variables will include the future building(s) location(s) being established (or changed) and/or classified vegetation being modified or removed to establish the necessary vegetation separation distance. This may also be dependent on receiving approval from the relevant authority for that modification/removal.

#### BAL RATING APPLICATION – PLANNING APPROVAL VERSUS BUILDING APPROVAL

1. **Planning Approval:** SPP.3.7 establishes that where BAL- LOW to BAL-29 will apply to relevant future construction (or existing structures for proposed uses), the proposed development may be considered for approval (dependent on the other requirements of the relevant policy measures being met). That is, BAL40 or BAL-FZ are not acceptable on planning grounds (except for certain limited exceptions).

Because planning is looking forward at what can be achieved, as well as looking at what may currently exist, both determined and indicative BAL ratings are acceptable assessment outcomes on which planning decisions can be made (including conditional approvals).

2. **Building Approval:** The Building Code of Australia (Vol. 1 & 2 of the NCC) establishes that relevant buildings in bushfire prone areas must be constructed to the bushfire resistant requirements corresponding to the BAL rating that is to apply to that building. Consequently, a determined BAL rating and the BAL Certificate is required for a building permit to be issued - an indicative BAL rating is not acceptable.



### 3.1 BAL Assessment Summary - Contour Map Format

#### INTERPRETATION OF THE BAL CONTOUR MAP

The BAL contour map is a diagrammatic representation of the results of the bushfire attack level assessment.

The map presents different coloured contours extending out from the areas of classified vegetation. Each contour represents a set range of radiant heat flux that potentially will transfer to an exposed element (building, person or other defined element), when it is located within that contour.

Each of the set ranges of radiant heat flux corresponds to a different BAL rating as defined by the AS 3959:2018 BAL determination methodology.

The width of each shaded BAL contour will vary dependant on both the BAL rating and the relevant parameters (calculation inputs) for the subject site. Their width represents the minimum and maximum vegetation separation distances that correspond to each BAL rating (refer to the relevant table below for these distances).

The areas of classified vegetation to be considered in developing the BAL contours, are those that will remain at the intended end state of the subject development once earthworks, clearing and/or landscaping and re-vegetation have been completed. Variations to this statement that may apply include:

- Both pre and post development BAL contour maps are produced; and/or
- Each stage of a development is assessed independently.

#### 3.1.1 The BAL Determination Method(s) Applied and the Location of Data and Results

Procedure Method (AS 3959:2018)	Applied to the BAL Assessment	Location of the Site Assessment Data			Location of the Results
		Classified Vegetation and Topography Map(s)	Calculation Input Variables		
			Summary Data	Detailed Data with Explanatory and Supporting Information	
					Assessed Bushfire Attack Levels and/or Radiant Heat Levels
Method 1 (Simplified)	Yes	Figures 3.1a and 3.1b	Table 3.1	Appendix A1	Table 3.2



Figure 3.1  
**Classified Vegetation & Topography (Existing)**  
 Lot 9002 on Plan 411502, Area : 9,948 sq m  
 Strickland Drive,  
 DALWALLINU 6607  
 SHIRE OF DALWALLINU

----- LEGEND -----

- Subject Site
- Other Lots
- P Photo & Direction
- H Hydrant
- Proposed Subdivision
- Proposed Carriageway
- 150m Vegetation Assessment Area
- 150m from Subject Site

**Classified Vegetation**

- Class (B) Woodland
- Class (G) Grassland
- Exclusion 2.2.3.2

0 20 40 60 80  
Metres

----- LOCALITY -----

Aerial Imagery : Google / Landgate

Coordinate System: GDA 1994 MGA Zone 50  
 Projection: Universal Transverse Mercator Units: Metre  
 Map compiled by: Ian Pea 29/07/2022  
 Map updated by: Ian Pea 27/09/2022  
 A3 Scale: 1:1,500

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 Map Document Path / Name: E:\Project\Jobs\2015\15463 LandCorp\Various\15463a - Dalwallinu Residential (RM) - Aug 2022\Mapping\MXD\15463E\_Fig 3-1\_VEG Dalwallinu\_Resid.mxd

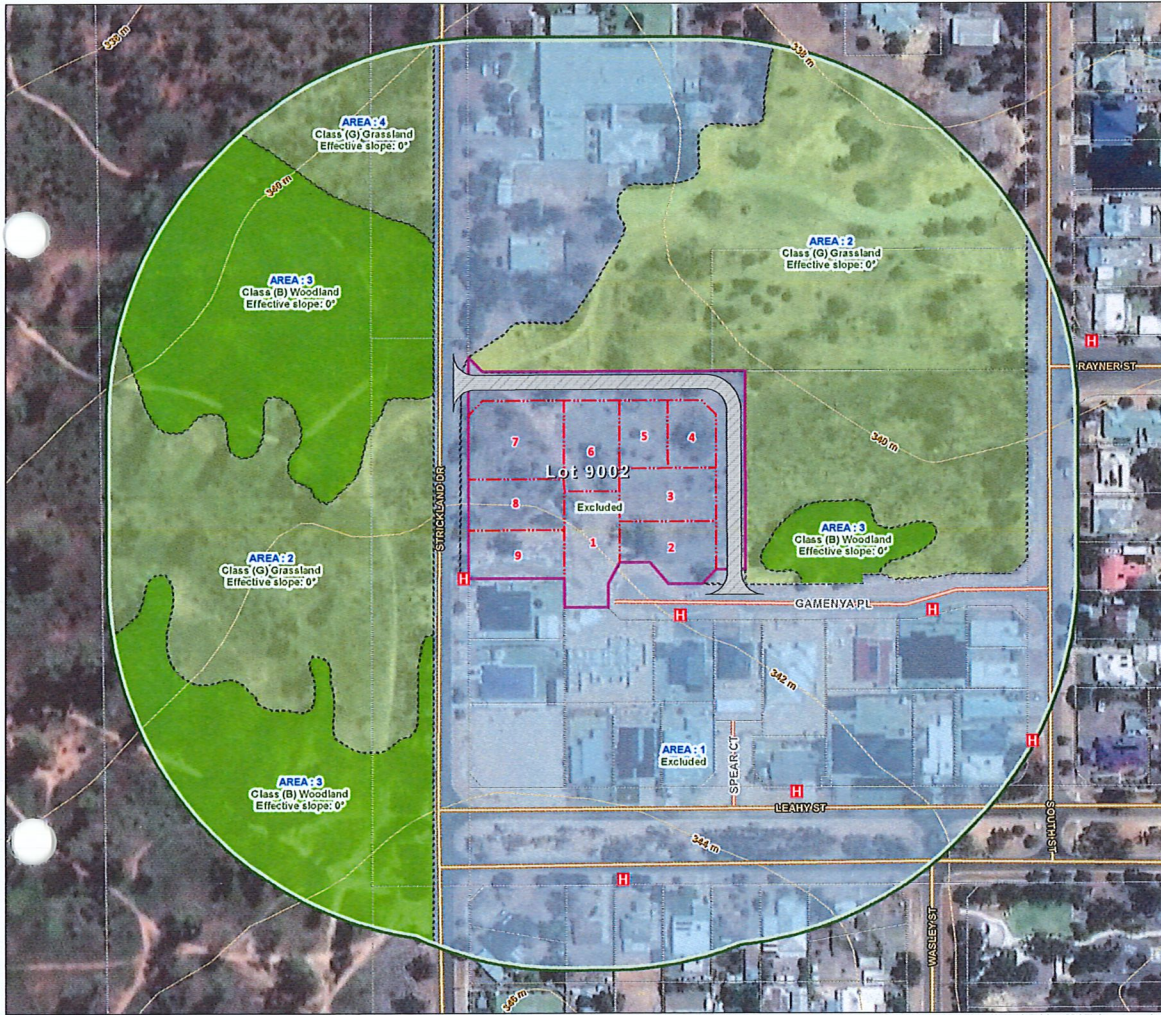


Figure 3.1.1  
**Classified Vegetation & Topography (Post Development)**  
 Lot 9002 on Plan 411502. Area : 9,948 sq m  
 Strickland Drive,  
 DALWALLINU 6609  
 SHIRE OF DALWALLINU

- LEGEND -----
- Subject Site
  - Other Lots
  - H Hydrant
  - Proposed Subdivision
  - Proposed Carriageway
  - 150m Vegetation Assessment Area
  - 150m from Subject Site
  - Classified Vegetation**
  - Class (B) Woodland
  - Class (G) Grassland
  - Exclusion 2.2.3.2

0 20 40 60 80  
 Metres



Aerial Imagery : Google / Landgate



Coordinate System: GDA 1994 MGA Zone 50  
 Projection: Universal Transverse Mercator 8436 Metre  
 Map compiled by Ian Ross 29/09/2022  
 Map updated by Ian Ross 29/09/2022  
 A3 Scale: 1:1,500

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 Map Document Path / Name: E:\Project\Jobs 2015\15443 Land Corp Var\ou\15443e - Dalwallinu Residential (RM) - Aug 2022\Mapping\MXD\15443E\_Fig3-1-1\_VEG\_POST Dalwallinu\_Resid.mxd

CONSTRUCTION OF THE BAL CONTOUR MAP(S) – RELEVANT CLASSIFIED VEGETATION	
Identification of Classified Vegetation that is Relevant to the Production of the BAL Contour Map(s)	Relevant Map
All identified areas of classified vegetation that exist at the time of the site assessment – both within the subject site (onsite) and external to the subject site (offsite) will be the relevant vegetation.	Figure No. 3.1
<p>All identified classified vegetation areas, or portions of areas, within a proposed subdivision are excluded. It is the classified vegetation external to the subdivision boundaries that is the relevant vegetation.</p> <p>This approach is applied to indicate the achievable bushfire attack levels within the subdivision and the resultant area of developable land on all lots where buildings will be subject to BAL-29 or less. It is based on the following assumptions:</p> <ol style="list-style-type: none"> <li>1. Any classified vegetation within the subdivision can potentially be managed or removed by the developer and/or landowner to meet asset protection zone standards; and</li> <li>2. Future development and consequent removal/management of vegetation that may take place on any adjoining land cannot be part of considerations for the subdivision.</li> </ol>	Figure No. 3.1.1
The areas of classified vegetation that will remain at the intended end state of the subject development once earthworks, any clearing and/or landscaping and re-vegetation have been completed, will be the relevant vegetation for the post-development BAL contour map.	Figure No. 3.2
<p>Supporting Assessment Details:</p> <p>None Required</p>	

### 3.1.1 Summary Site Data Applied to Construction of the BAL Contour Map(s)

Table 3.1: Summary of applied calculation input variables applied to determining the site specific separation distances corresponding to each bushfire attack level.

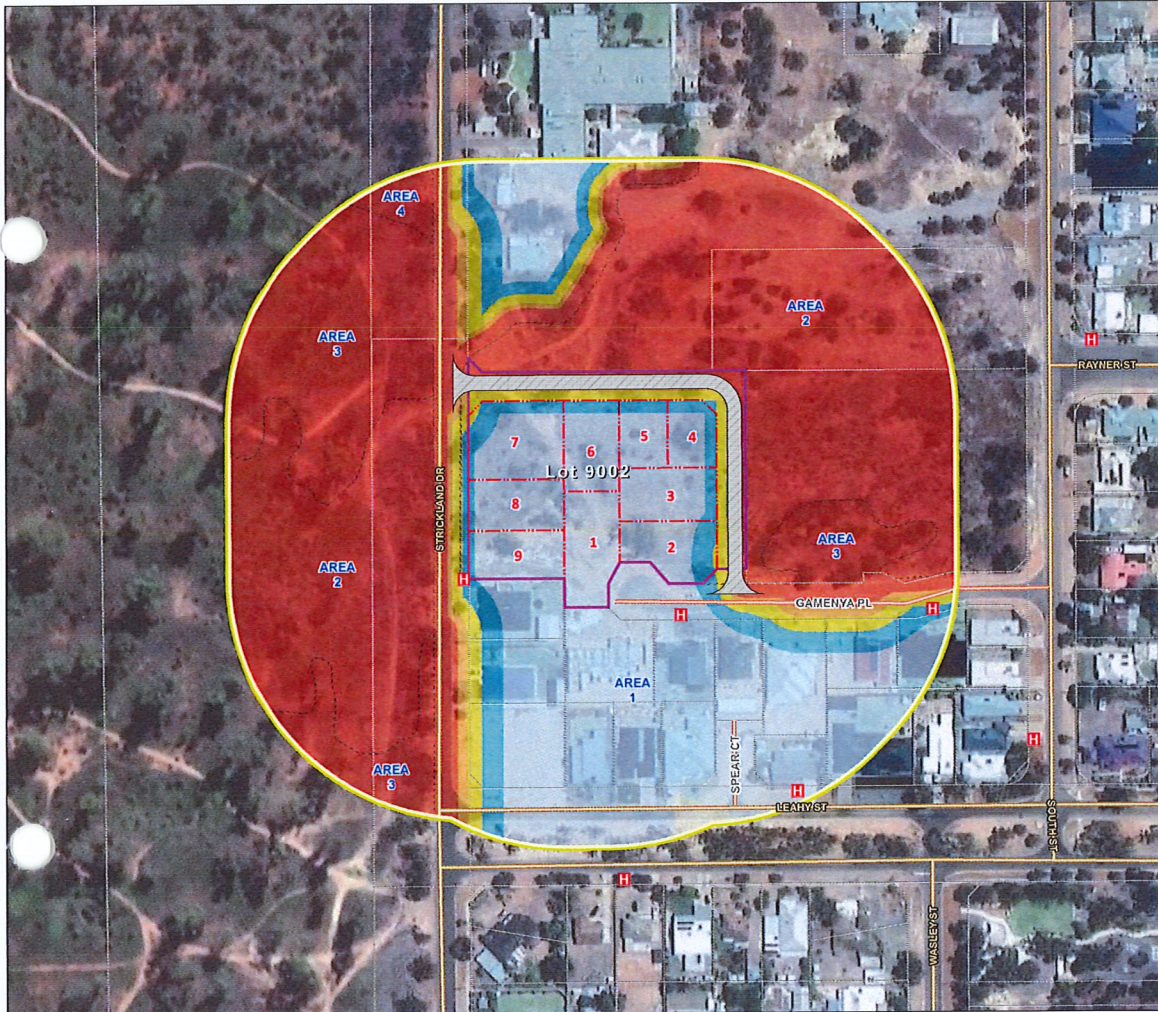
SUMMARY OF CALCULATION INPUT VARIABLES (INCLUDING SITE DATA) APPLIED TO THE DETERMINATION OF SEPARATION DISTANCES CORRESPONDING TO BUSHFIRE ATTACK LEVELS <sup>1</sup>												
Applied BAL Determination Method		METHOD 1 - SIMPLIFIED PROCEDURE (AS 3959:2018 CLAUSE 2.2)										
Calculation Variables Corresponding to BAL Determination Method												
Methods 1 and 2		Method 1			Method 2							
Vegetation Classification		FDI	Effective Slope		Site Slope	FFDI or GFDI	Flame Temp.	Elevation of Receiver	Flame Width	Fireline Intensity	Flame Length	Modified View Factor
Area	Class		Applied Range	Measured								
1	Excluded cl 2.2.3.2(e & f)	80	N/A	N/A								
2	(G) Grassland	80	Upslope or flat 0	flat 0								
3	(B) Woodland	80	Upslope or flat 0	flat 0								
4	(G) Grassland	80	Upslope or flat 0	flat 0								

<sup>1</sup> All data and information supporting the determination of the classifications and values stated in this table and any associated justification, is presented in Appendix A. Where the values are stated as 'default' these are either the values stated in AS 3959:2018, Table B1 or the values calculated as intermediate or final outputs through application of the equations of the AS 3959:2018 BAL determination methodology. They are not values derived by the assessor.

Table 3.1.2: Vegetation separation distances corresponding to radiant heat levels and illustrated as BAL contours in Figure 3.2.

THE CALCULATED VEGETATION SEPARATION DISTANCES CORRESPONDING TO THE STATED LEVEL OF RADIANT HEAT <sup>1</sup>									
Vegetation Classification		Separation Distances Corresponding to Stated Level of Radiant Heat (metres)							
		Bushfire Attack Level						Maximum Radiant Heat Flux	
Area	Class	BAL-FZ	BAL-40	BAL-29	BAL-19	BAL12.5	BAL-LOW	10 kW/m <sup>2</sup>	2 kW/m <sup>2</sup>
1	Excluded cl 2.2.3.2(e & f)								
2	(G) Grassland	<6	6-<8	8-<12	12-<17	17-<50	>50		
3	(B) Woodland	<10	10-<14	14-<20	20-<29	29-<100	>100		
4	(G) Grassland	<6	6-<8	8-<12	12-<17	17-<50	>50		

<sup>1</sup> All calculation input variables are presented in Table 3.1. The summary 'printouts' of calculation input and output values for each area of classified vegetation are presented in Appendix A.



**Figure 3.2**  
**BAL Contour Map**  
**(Post Development)**  
 Lot 9002 on Plan 411502, Area : 9,948 sq m  
 Strickland Drive,  
 DALWALLINU 6609  
 SHIRE OF DALWALLINU

**LEGEND**

- Subject Site
- Other Lots
- H Hydrant
- Proposed Subdivision
- Proposed Carriageway
- 100m Vegetation Assessment Area
- 100m from Subject Site
- Classified Vegetation Boundary

**Indicative Bushfire Attack Levels**

- BAL FZ
- BAL 40
- BAL 29
- BAL 19
- BAL 12.5
- BAL LOW

0 20 40 60 80  
Metres

**LOCALITY**

Aerial Imagery : Google / Landgate

Coordinate System: GDA 1994 MGA Zone 50  
 Projection: Universal Transverse Mercator Units: Metre  
 Map compiled by: Ian Ross 29/09/2022  
 Map updated by: Ian Ross 29/09/2022  
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 Map Document Path / Name: EA\Projects\Jobs 2015\15463 Land Corp Various\15463a - Dalwallinu Residential (BMP) - Aug 2022\MapProj\MXD\15463E\_Fig 3-2\_BAL\_C ON Dalwallinu\_Resid.mxd

### 3.1.3 BAL Ratings Derived from the Contour Map

Table 3.3: Indicative and determined BAL(s) for future buildings/structures on the proposed lots.

BUSHFIRE ATTACK LEVEL FOR FUTURE BUILDINGS / STRUCTURES ON STATED LOT <sup>1</sup>		
Lot No.	Future Buildings / Structure	
	Indicative BAL <sup>2</sup>	Determined BAL <sup>2</sup>
1	BAL-12.5	Not Determined
2	BAL-19	Not Determined
3	BAL-19	Not Determined
4	BAL-19	Not Determined
5	BAL-19	Not Determined
6	BAL-19	Not Determined
7	BAL-19	Not Determined
8	BAL-19	Not Determined
9	BAL-19	Not Determined

<sup>1</sup> The assessment data used to derive the BAL ratings is sourced from Table 3.1 and Figure 3.2.  
<sup>2</sup> Refer to the start of Section 3 for an explanation of indicative versus determined BAL ratings.



## 4 IDENTIFICATION OF BUSHFIRE HAZARD ISSUES

The Guidelines for Planning in Bushfire Prone Areas (WAPC 2021 v1.4), Appendix 5, establish that the application of this section of the BMP is intended to support **strategic planning** proposals. At the strategic planning stage there will typically be insufficient proposed development detail to enable all required assessments, including the assessment against the bushfire protection criteria.

### Strategic Planning Proposals

For strategic planning proposals this section of the BMP will identify:

- Issues associated with the level of the threats presented by any identified bushfire hazard;
- Issues associated with the ability to implement sufficient and effective bushfire protection measures to reduce the exposure and vulnerability levels (of elements exposed to the hazard threats), to a tolerable or acceptable level; and
- Issues that will need to be considered at subsequent planning stages.

### All Other Planning Proposals

For all other planning stages, this BMP will address what are effectively the same relevant issues but do it within the following sections:

- Section 2 – Environmental Conservation: Assess environmental, biodiversity and conservation values);
- Section 3 – Potential Bushfire Impact: Assess the bushfire threats with the focus on flame contact and radiant heat; and
- Section 5 – Assessment Against the Bushfire Protection Criteria (including the guidance provided by the *Position Statement: 'Planning in bushfire prone areas – Demonstrating Element 1: Location and Element 2'*): Assess the ability of the proposed development to apply the required bushfire protection measures thereby enabling it to be considered for planning approval for these factors.

<b>Is the proposed development a strategic planning proposal?</b>	No
---	----

## 5 ASSESSMENT AGAINST THE BUSHFIRE PROTECTION CRITERIA (GUIDELINES V1.4)

### 5.1 Bushfire Protection Criteria Elements Applicable to the Proposed Development/Use

#### APPLICATION OF THE CRITERIA, ACCEPTABLE SOLUTIONS AND PERFORMANCE ASSESSMENT

The criteria are divided into five elements – location, siting and design, vehicular access, water and vulnerable tourism land uses. Each element has an intent outlining the desired outcome for the element and reflects identified planning and policy requirements in respect of each issue.

The example acceptable solutions (bushfire protection measures) provide one way of meeting the element's intent. Compliance with these automatically achieves the element's intent and provides a straightforward pathway for assessment and approval.

Where the acceptable solutions cannot be met, the ability to develop design responses (as alternative solutions that meet bushfire performance requirements) is an alternative pathway that is provided by addressing the applicable performance principles (as general statements of how best to achieve the intent of the element).

A merit based assessment is established by the SPP 3.7 and the Guidelines as an additional alternative pathway along with the ability of using discretion in making approval decisions (sections 2.5, 2.6 and 2.7). This is formally applied to certain development (minor and unavoidable – sections 5.4.1 and 5.7). Relevant decisions by the State Administrative Tribunal have also supported this approach more generally.

Elements 1 – 4 should be applied for all strategic planning proposals, subdivision or development applications, except for vulnerable tourism land uses which should refer to Element 5. Element 5 incorporates the bushfire protection criteria in Elements 1 – 4 but caters them specifically to tourism land uses. (Guidelines DPLH 2021 v1.4)

The Bushfire Protection Criteria	Applicable to the Proposed Development/Use
Element 1: Location	Yes
Element 2: Siting and Design	Yes
Element 3: Vehicular Access	Yes
Element 4: Water	Yes
Element 5: Vulnerable Tourism Land Uses	No

### 5.2 Local Government Variations to Apply

Local governments may add to or modify the acceptable solutions to recognise special local or regional circumstances (e.g., topography / vegetation / climate). These are to be endorsed by both the WAPC and DFES before they can be considered in planning assessments. (Guidelines DPLH 2021 v1.4).

Do endorsed regional or local variations to the acceptable solutions apply to the assessments against the Bushfire Protection Criteria for the proposed development /use?	None known or identified
---	--------------------------

### 5.3 Assessment Statements for Element 1: Location

Applicable:	yes	no	Compliant:	yes	no	partly	-
-------------	-----	----	------------	-----	----	--------	---

LOCATION	
<b>Element Intent</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.
<b>Proposed Development/Use – Relevant Planning Stage</b>	(Sb) Structure plan where the lot layout is known and subdivision application
<b>Element Compliance Statement</b>	The proposed development/use achieves the intent of the element by being fully compliant with all applicable acceptable solutions.
<b>Pathway Applied to Provide an Alternative Solution</b>	N/A
<b>Acceptable Solutions - Assessment Statements</b>	
<p>All details of acceptable solution requirements are established in the <i>Guidelines for Planning in Bushfire Prone Areas, DPLH v1.4 (Guidelines)</i> and apply the guidance established by the <i>Position Statement: 'Planning in bushfire prone areas – Demonstrating Element 1: Location and Element 2: Siting and design'</i> (WAPC Nov 2019) and the <i>'Bushfire Management Plan Guidance for the Dampier Peninsula'</i> (WA Department of Planning, Lands and Heritage, 2021 Rev B) as relevant. These documents are available at <a href="https://www.wa.gov.au/government/document-collections/state-planning-policy-37-planning-bushfire-prone-areas">https://www.wa.gov.au/government/document-collections/state-planning-policy-37-planning-bushfire-prone-areas</a>.</p>	
<b>Solution Component Check Box Legend</b>	<input checked="" type="checkbox"/> Relevant & met <input checked="" type="checkbox"/> Relevant & not met <input type="checkbox"/> Not relevant
<b>A1.1 Development location</b>	<b>Applicable:</b> Yes <b>Compliant:</b> Yes
<b>ASSESSMENT AGAINST THE REQUIREMENTS ESTABLISHED BY THE GUIDELINES</b>	
<input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	The subdivision 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.
<b>Supporting Assessment Details:</b>	
The proposed subdivision will provide an area of land within each lot that can be considered suitable for development as BAL-40 or BAL-FZ construction requirements will not be required to be applied. This meets the requirements established by Acceptable Solution A1.1 and its associated explanatory note. In addition, the vegetation surrounding the proposed development can be classed as a moderate bushfire hazard level.	
<b>ASSESSMENTS APPLYING THE GUIDANCE ESTABLISHED BY THE WAPC ELEMENT 1 &amp; 2 POSITION STATEMENT (2019)</b>	
<p>"Consideration should be given to the site context where 'area' is the land both within and adjoining the subject site. The hazards remaining within the site should not be considered in isolation of the hazards adjoining the site, as the potential impact of a bushfire will be dependent on the wider risk context, including how a bushfire could affect the site and the conditions for a bushfire to occur within the site."</p> <p><b>Strategic Planning Proposals:</b> Consider the threat levels from any vegetation <u>adjoining</u> and <u>within</u> the subject site for which the potential intensity of a bushfire in that vegetation would result in it being classified as an Extreme Bushfire Hazard Level (BHL). Identify any proposed design strategies to reduce these threats.</p> <p><b>Structure Plans (lot layout known) and Subdivision Applications:</b> As for strategic planning proposals but <u>within</u> the subject site the relevant threat levels to consider are the radiant heat levels represented by BAL-FZ and BAL-40 ratings.</p>	

### **The Hazard Within the Subject Site**

The proposal is for the subdivision of one (1) large existing allotment into nine (9) smaller, residential lots. The subject site currently lies within a bushfire prone area as defined by the OBRM map of Bushfire Prone Areas. It exists in an established and developing residential area (Local Planning Scheme Zoning = Residential) (in the suburb of Dalwallinu). The removal or modification of classifiable vegetation will be required within the boundaries of the subject allotment (subject to approval by the Local Government) to ensure any future structures achieve separation to bushfire prone vegetation that does not exceed 29 kW/m<sup>2</sup>. Asset Protection Zones (APZ) can be established within the extents of the subject lots.

The subject site is currently vegetated with vegetation being classified as Class G Grassland. The impact of the slope under the vegetation will be dependent on a bushfire's direction of travel. The topography in the area surrounding the proposed development has an overall flat land appearance.

Bushfire rates of spread will be predominantly influenced by wind speed and direction rather than degrees of upslope.

The primary bushfire threat from bushfire prone vegetation remaining within the subject land will be embers. This threat will be mitigated by the application of appropriate building design, bushfire construction standards and the ongoing maintenance of the APZ to ensure the buildings will not be impacted by consequential fire within combustible materials used, stored or accumulated within the APZ.

### **The Hazard Adjoining the Subject Site**

Bushfire prone vegetation within the area exists as retained vegetation classified as Class B Woodland and Class G Grassland. All areas of classified vegetation are located within 150 metres of this proposal. The undeveloped land within the locality supports this vegetation. Managed areas the south of the subject site comprises of maintained private gardens, road verges, driveways and cleared areas surrounding existing structures.

The adjoining land cannot be considered as rugged (which would present the potential for more extreme and variable fire behaviour).

## 5.4 Assessment Statements for Element 2: Siting and Design

SITING AND DESIGN OF DEVELOPMENT	
<b>Element Intent</b>	To ensure that the siting and design of development minimises the level of bushfire impact.
<b>Proposed Development/Use – Relevant Planning Stage</b>	(Sb) Structure plan where the lot layout is known and subdivision application
<b>Element Compliance Statement</b>	The proposed development/use achieves the intent of the element by being fully compliant with all applicable acceptable solutions.
<b>Pathway Applied to Provide an Alternative Solution</b>	N/A
<b>Acceptable Solutions - Assessment Statements</b>	
<p>All details of acceptable solution requirements are established in the <i>Guidelines for Planning in Bushfire Prone Areas, DPLH v1.4 (Guidelines)</i> and apply the guidance established by the <i>Position Statement: 'Planning in bushfire prone areas – Demonstrating Element 1: Location and Element 2: Siting and design'</i> (WAPC Nov 2019) and the <i>'Bushfire Management Plan Guidance for the Dampier Peninsula'</i> (WA Department of Planning, Lands and Heritage, 2021 Rev B) as relevant. These documents are available at <a href="https://www.wa.gov.au/government/document-collections/state-planning-policy-37-planning-bushfire-prone-areas">https://www.wa.gov.au/government/document-collections/state-planning-policy-37-planning-bushfire-prone-areas</a>.</p>	
<p><b>Solution Component Check Box Legend</b>      <input checked="" type="checkbox"/> Relevant &amp; met      <input checked="" type="checkbox"/> Relevant &amp; not met      <input type="checkbox"/> Not relevant</p>	
<b>A2.1 Asset Protection Zone (APZ)</b>	<b>Applicable:</b> Yes <b>Compliant:</b> Yes
<b>UNDERSTANDING THE APZ <u>PLANNING ASSESSMENT</u> VERSUS APZ <u>IMPLEMENTATION REQUIREMENTS</u></b>	
<div style="border: 1px solid black; padding: 10px; margin: 10px auto; width: 80%;"> <p><i>Note: Appendix B: 'Onsite Vegetation Management' provides further information regarding the different APZ dimensions that can be referenced, their purpose and the specifications of the APZ that is to be established and maintained.</i></p> </div>	
<p>To reduce risk to buildings (and indirectly to persons) from a bushfire event, a key bushfire protection measure required to be implemented is reducing the exposure of building elements to the direct bushfire threats of flame contact, radiant heat and embers and the indirect threat of consequential fires that result from the subsequent ignition of other combustible materials that may be constructed, stored or accumulate in the area surrounding buildings.</p> <p>This is achieved by separating existing and/or proposed buildings from areas of classified bushfire prone vegetation. The total area of separation is identified as the Asset Protection Zone (APZ), which exists as an area of minimal fire fuels (or no fuel) and is considered able and likely to remain a low threat and/or be maintained to a low threat state in perpetuity. The required separation distances will vary according to the site specific conditions.</p> <p><b>THE APZ PLANNING ASSESSMENT:</b> To achieve planning approval for this factor it must be demonstrated that separation distances that correspond to a maximum level of radiant transfer to a building (29 kW/m<sup>2</sup>), either exist or can be established (with certain exceptions). These separation distances are the dimensions of the <b>'Planning BAL-29' APZ</b>.</p> <p>The purpose of this planning assessment is to identify and justify how this low threat area (the Planning BAL-29' APZ) can exist – or not.</p> <p><b>THE DIMENSIONS OF THE 'PLANNING BAL-29' APZ MAY EXTEND OUTSIDE SUBJECT LOT BOUNDARIES. THE APZ MAY NOT BE EQUIDISTANT AROUND A BUILDING AS THE REQUIRED SEPARATION DISTANCES DEPEND ON THE TYPE OF VEGETATION PRESENT IN EACH DIRECTION ALONG WITH OTHER SITE VARIABLES.</b></p> <p><b>IT IS IMPORTANT TO UNDERSTAND THAT THE 'PLANNING BAL-29' APZ IS NOT NECESSARILY THE SIZE OF THE APZ THAT MUST BE PHYSICALLY ESTABLISHED AND MAINTAINED BY A LANDOWNER. IT IS A SCREENING TOOL FOR MAKING PLANNING APPROVAL DECISIONS.</b></p> <p><b>THE APZ TO BE IMPLEMENTED:</b> The required dimensions to be established and maintained by the landowner will be those that correspond to the determined BAL rating of a relevant building but limited to the land of the subject lot</p>	

(with limited exceptions). The requirement for a greater dimension within a lot will only exist if it is required by the relevant local government's annual firebreak / hazard reduction notice or the APZ size is increased as an additional bushfire protection measure as a recommendation of this BMP.

Within this BMP it is the 'Planning BAL-29' APZ that will be identified on maps, diagrams and in tables as necessary.

The exceptions are the data provided in Appendix B part B1 and when a Property Bushfire Management Statement is required to be produced for a development application, in which case the '**Landowner**' APZ dimensions will be shown on the site map (refer to s6.3.1 when relevant).

#### ASSESSMENT AGAINST THE REQUIREMENTS ESTABLISHED BY THE GUIDELINES

**APZ Width:** The proposed (or a future) habitable building(s) on the lot(s) of the proposed development - or an existing building for a proposed change of use - can be (or is) located within the developable portion of the lot and be surrounded by a 'Planning BAL-29' APZ of the required dimensions (measured from any external wall or supporting post or column to the edge of the classified vegetation), that will ensure their exposure to the potential radiant heat impact of a bushfire does not exceed 29 kW/m<sup>2</sup>.

**Restriction on Building Location:** It has been identified that the current developable portion of a lot(s) provides for the proposed future (or a future) building/structure location that will result in that building/structure being subject to a BA-40 or BAL-FZ rating. Consequently, it may be considered necessary to impose the condition that a restrictive covenant to the benefit of the local government pursuant to section 129BA of the Transfer of Land Act 1893, is to be placed on the certificate(s) of title of the proposed lot(s) advising of the existence of a restriction on the use of that portion of land (refer to Code F3 of Model Subdivision Conditions Schedule, WAPC June 2021 and Guidelines s5.3.2).

**APZ Location:** The required dimensions for a 'Planning BAL-29' APZ can be contained solely within the boundaries of the lot(s) on which the proposed (or a future) habitable building(s) - or an existing building(s) for a proposed change of use - is situated.

**APZ Location:** The required dimensions for a 'Planning BAL-29' APZ can be partly established within the boundaries of the lot(s) on which the proposed (or a future) habitable building(s) - or an existing building(s) for a proposed change of use - is situated. The balance of the APZ would exist on adjoining land that satisfies the exclusion requirements of AS 3959:2018 cl 2.2.3.2 for low threat vegetation and non-vegetated areas.

**APZ Location:** It can be justified that any adjoining (offsite) land forming part of a 'Planning BAL-29' APZ will:

- If non-vegetated, remain in this condition in perpetuity; and/or
- If vegetated, be low threat vegetation managed in a minimal fuel condition in perpetuity.

**APZ Management:** The area of land (within each lot boundary), that is to make up the required 'Landowner' APZ dimensions (refer to Appendix B, Part B1), can and will be managed in accordance with the requirements of the Guidelines Schedule 1 'Standards for Asset Protection Zones' (refer to Appendix B).

**Subdivision Staging:** There are undeveloped future stages of subdivision, containing bushfire prone vegetation, that have been taken into consideration for their potentially 'temporary' impact on the ability

to establish a 'Planning BAL-29' APZ on adjoining developed lots. A staging plan is developed to manage this.

**Firebreak/Hazard Reduction Notice:** Any additional requirements established by the relevant local government's annual notice to install firebreaks and manage fuel loads (issued under s33 of the Bushfires Act 1954), can and will be complied with.

**Supporting Assessment Details:**

The ability to establish the 'Planning BAL-29' APZ dimensions is illustrated in Figure 3.2. Onsite native vegetation will be required to be modified and/or removed, for which the appropriate authority will be required (refer to Section 2 of this BMP).

**ASSESSMENTS APPLYING THE GUIDANCE ESTABLISHED BY THE WAPC ELEMENT 1 & 2 POSITION STATEMENT (2019)**

**Strategic Planning Proposals:** "At this planning level there may not be enough detail to demonstrate compliance with this element. The decision-maker may consider this element is satisfied where A1.1 is met."

**Structure Plans (lot layout known) and Subdivision Applications:** "Provided that Element 1 is satisfied, the decision-maker may consider approving lot(s) containing BAL-40 or BAL-FZ under the following scenarios.

Scenario A: The lots sizes provide sufficient area to accommodate a building and the establishment of an APZ dimensioned to ensure a maximum BAL rating of BAL-29 will apply to that building.

## 5.5 Assessment Statements for Element 3: Vehicular Access

VEHICULAR ACCESS	
<b>Element Intent</b>	To ensure that the vehicular access serving a subdivision/development is available and safe during a bushfire event.
<b>Proposed Development/Use – Relevant Planning Stage</b>	(Sb) Structure plan where the lot layout is known and subdivision application
<b>Element Compliance Statement</b>	The proposed development/use achieves the intent of the element by being fully compliant with all applicable acceptable solutions.
<b>Pathway Applied to Provide an Alternative Solution</b>	N/A
<b>Acceptable Solutions - Assessment Statements</b>	
<p>All details of acceptable solution requirements are established in the Guidelines for Planning in Bushfire Prone Areas, DPLH v1.4 (Guidelines) and apply the guidance established by the Position Statement: 'Planning in bushfire prone areas – Demonstrating Element 1: Location and Element 2: Siting and design' (WAPC Nov 2019) and the 'Bushfire Management Plan Guidance for the Dampier Peninsula' (WA Department of Planning, Lands and Heritage, 2021 Rev B) as relevant. These documents are available at <a href="https://www.wa.gov.au/government/document-collections/state-planning-policy-37-planning-bushfire-prone-areas">https://www.wa.gov.au/government/document-collections/state-planning-policy-37-planning-bushfire-prone-areas</a>.</p> <p>The technical construction requirements for access types and components, and for each firefighting water supply component, are also presented in Appendices 2 and 3. The local government will advise the proponent where different requirements are to apply and when any additional specifications such as those for signage and gates are to apply (these are included in the relevant appendix if requested by the local government).</p>	
<p><b>Solution Component Check Box Legend</b>      <input checked="" type="checkbox"/> Relevant &amp; met      <input checked="" type="checkbox"/> Relevant &amp; not met      <input type="checkbox"/> Not relevant</p>	
<b>A3.1 Public roads</b>	<p style="text-align: right;"><b>Applicable:</b> Yes    <b>Compliant:</b> Yes</p>
<input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<p>The technical construction requirements of vertical clearance and weight capacity (Guidelines, Table 6) can and will be complied with (Refer also to Appendix C in this BMP).</p>
<input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<p>All other applicable technical requirements of trafficable width, gradients and curves, are required to be in "accordance with the class of road as specified in the IPWEA Subdivision Guidelines, Liveable Neighbourhoods, Ausroad Standards and/or any applicable standard in the local government area" (Guidelines, Table 6 and E3.1. Refer also to Appendix C in this BMP).</p> <p>The assessment conducted for the bushfire management plan indicates that it is likely that the proposed development can and will comply with the requirements.</p> <p>However, the applicable class of road, the associated technical requirements and subsequent proposal compliance, will need to be confirmed with the relevant local government and/or Main Roads WA.</p>
<input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<p>A traversable verge is available adjacent to classified vegetation (Guidelines, E3.1), as recommended.</p>
<p><b>Supporting Assessment Details:</b> Strickland Drive is a public road and passes on the western side of the subdivision. A new road (12m) in width is proposed to wrap around the northern and eastern edges of the development and will join to the existing Gamenya Place.</p>	



A3.2a Multiple access routes	Applicable:	Yes	Compliant:	Yes
<input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> For each lot, two-way public road access is provided in two different directions to at least two different suitable destinations with an all-weather surface.				
<input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> The two-way access <u>is</u> available at an intersection no greater than 200m from the relevant boundary of each lot, via a no-through road.				
<p>The two-way access is <u>not</u> available at an intersection within 200m from the relevant boundary of each lot. However, the available no-through road satisfies the established exemption for the length limitation in every case. These requirements are:</p> <p><input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/> <ul style="list-style-type: none"> <li>• Demonstration of no alternative access (refer to A3.3 below);</li> <li>• The no-through road travels towards a suitable destination; and</li> <li>• The balance of the no-through road that is greater than 200m from the relevant lot boundary is within a residential built-out area or is potentially subject to radiant heat levels from adjacent bushfire prone vegetation that correspond to the BAL-LOW rating (&lt;12.5 kW/m<sup>2</sup>).</li> </ul> </p>				
<b>Supporting Assessment Details:</b> Each lot has two-way public road access to two different directions.				
A3.2b Emergency access way	Applicable:	No	Compliant:	N/A
<input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/> The proposed or existing EAW provides a through connection to a public road.				
<input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/> The proposed or existing EAW is less than 500m in length and will be signposted and gated (remaining unlocked) to the specifications stated in the Guidelines and/or required by the relevant local government.				
<input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/> The technical construction requirements for widths, clearances, capacity, gradients and curves (Guidelines, Table 6 and E3.2b. Refer also to Appendix C in this BMP), can and will be complied with.				
<b>Supporting Assessment Details:</b> None required				
A3.3 Through-roads	Applicable:	Yes	Compliant:	Yes
<input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/> A no-through public road is necessary as no alternative road layout exists due to site constraints.				
<input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/> The no-through public road length does not exceed the established maximum of 200m to an intersection providing two-way access (Guidelines, E3.3).				
<input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/> The no-through public road exceeds 200m but satisfies the exemption provisions of A3.2a as demonstrated in A3.2a above.				
<input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> The public road technical construction requirements (Guidelines, Table 6 and E3.1. Refer also to Appendix C in this BMP), can and will be complied with as established in A3.1 above.				
<input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/> The turnaround area requirements (Guidelines, Figure 24) can and will be complied with.				

<b>Supporting Assessment Details:</b> None required			
<b>A3.4a Perimeter roads</b>	<b>Applicable:</b>	No	<b>Compliant:</b> N/A
<input type="checkbox"/> <input type="checkbox"/> <input checked="" type="radio"/>	The proposed greenfield or infill development consists of 10 or more lots (including those that are part of a staged subdivision) and therefore should have a perimeter road. This is planned to be installed.		
<input type="checkbox"/> <input type="checkbox"/> <input checked="" type="radio"/>	<p>The proposed greenfield or infill development consists of 10 or more lots (including those that are part of a staged subdivision). However, it is not required on the established basis of:</p> <ul style="list-style-type: none"> <li>• The vegetation adjoining the proposed lots is classified Class G Grassland;</li> <li>• Lots are zoned rural living or equivalent;</li> <li>• It is demonstrated that it cannot be provided due to site constraints; or</li> <li>• All lots have existing frontage to a public road.</li> </ul>		
<input type="checkbox"/> <input type="checkbox"/> <input checked="" type="radio"/>	The technical construction requirements of widths, clearances, capacity, gradients and curves (Guidelines, Table 6 and E3.4a) can and will be complied with.		
<b>Supporting Assessment Details:</b> A perimeter road is not a requirement, however a 12m public road will be constructed around the perimeter of the proposed subdivision.			
<b>A3.4b Fire service access route</b>	<b>Applicable:</b>	No	<b>Compliant:</b> N/A
<input type="checkbox"/> <input type="checkbox"/> <input checked="" type="radio"/>	The FSAR can be installed as a through-route with no dead ends, linked to the internal road system every 500m and is no further than 500m from a public road.		
<input type="checkbox"/> <input type="checkbox"/> <input checked="" type="radio"/>	The technical construction requirements of widths, clearances, capacity, gradients and curves (Guidelines, Table 6 and E3.4b. Refer also to Appendix C in this BMP), can and will be complied with.		
<input type="checkbox"/> <input type="checkbox"/> <input checked="" type="radio"/>	The FSAR can and will be signposted. Where gates are required by the relevant local government, the specifications can be complied with.		
<input type="checkbox"/> <input type="checkbox"/> <input checked="" type="radio"/>	Turnaround areas (to accommodate type 3.4 fire appliances) can and will be installed every 500m on the FSAR.		
<b>Supporting Assessment Details:</b> None required			
<b>A3.5 Battle-axe access legs</b>	<b>Applicable:</b>	No	<b>Compliant:</b> N/A
<input type="checkbox"/> <input type="checkbox"/> <input checked="" type="radio"/>	A battle-axe leg cannot be avoided due to site constraints.		
<input type="checkbox"/> <input type="checkbox"/> <input checked="" type="radio"/>	The proposed development is in a reticulated area and the battle-axe access leg length from a public road is no greater than 50m. No technical requirements need to be met.		
<input type="checkbox"/> <input type="checkbox"/> <input checked="" type="radio"/>	The technical construction requirements for widths, clearances, capacity, gradients and curves (Guidelines, Table 6 and E3.5. Refer also to Appendix C in this BMP), can and will be complied with.		
<input type="checkbox"/> <input type="checkbox"/> <input checked="" type="radio"/>	Passing bays can and will be installed every 200m with a minimum length of 20m and a minimum additional trafficable width of 2m.		
<b>Supporting Assessment Details:</b> None required			

A3.6 Private driveways	Applicable:	No	Compliant:	N/A
<input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	The private driveway to the most distant external part of the development site is within a lot serviced by reticulated water, is accessed via a public road with a speed limit of 70 km/hr or less and has a length is no greater than 70m (measured as a hose lay). No technical requirements need to be met.			
<input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/>	The technical construction requirements for widths, clearances, capacity, gradients and curves (Guidelines, Table 6 and E3.6. Refer also to Appendix C in this BMP), can and will be complied with.			
<input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/>	Passing bays can and will be installed every 200m with a minimum length of 20m and a minimum additional trafficable width of 2m.			
<input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/>	The turnaround area requirements (Guidelines, Figure 28, and within 30m of the habitable building) can and will be complied with.			
<b>Supporting Assessment Details:</b> None required				

## 5.6 Assessment Statements for Element 4: Water

FIREFIGHTING WATER	
<b>Element Intent</b>	To ensure water is available to enable people, property and infrastructure to be defended from bushfire.
<b>Proposed Development/Use – Relevant Planning Stage</b>	(Sb) Structure plan where the lot layout is known and subdivision application
<b>Element Compliance Statement</b>	The proposed development/use achieves the intent of the element by being fully compliant with all applicable acceptable solutions.
<b>Pathway Applied to Provide an Alternative Solution</b>	N/A
<b>Acceptable Solutions - Assessment Statements</b>	
<p>All details of acceptable solution requirements are established in the Guidelines for Planning in Bushfire Prone Areas, DPLH v1.4 (Guidelines) and apply the guidance established by the Position Statement: 'Planning in bushfire prone areas – Demonstrating Element 1: Location and Element 2: Siting and design' (WAPC Nov 2019) and the 'Bushfire Management Plan Guidance for the Dampier Peninsula' (WA Department of Planning, Lands and Heritage, 2021 Rev B) as relevant. These documents are available at <a href="https://www.wa.gov.au/government/document-collections/state-planning-policy-37-planning-bushfire-prone-areas">https://www.wa.gov.au/government/document-collections/state-planning-policy-37-planning-bushfire-prone-areas</a>.</p> <p>The technical construction requirements for access types and components, and for each firefighting water supply component, are also presented in Appendices 2 and 3. The local government will advise the proponent where different requirements are to apply and when any additional specifications such as those for signage and gates are to apply (these are included in the relevant appendix if requested by the local government).</p>	
<b>Solution Component Check Box Legend</b> <input checked="" type="checkbox"/> Relevant & met <input checked="" type="checkbox"/> Relevant & not met <input type="checkbox"/> Not relevant	
<b>A4.1 Identification of future firefighting water supply</b>	<b>Applicable:</b> Yes <b>Compliant:</b> Yes
<input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> It can be demonstrated that reticulated or sufficient non-reticulated water for firefighting 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.	
<b>Supporting Assessment Details:</b> The subdivision has a reticulated source and hydrants are located as detailed by the technical requirements	
<b>A4.2 Provision of water for firefighting purposes</b>	<b>Applicable:</b> Yes <b>Compliant:</b> Yes
<input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> A reticulated water supply is available to the proposed development. The existing hydrant connection(s) are provided in accordance with the specifications of the relevant water supply authority.	
<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> A reticulated water supply will be available to the proposed development. Hydrant connection(s) can and will be provided in accordance with the specifications of the relevant water supply authority.	
<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> A static water supply (tank) for firefighting purposes will be installed on each lot that is additional to any water supply that is required for drinking and other domestic purposes. The proposed subdivision will retain an existing habitable building for which the same standard of water supply will be provided.	
<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> A strategic water supply (tank or tanks) for firefighting purposes will be installed within or adjacent to the proposed development that is additional to any water supply that is required for drinking and other domestic purposes. The required land will be ceded free of cost to the local government and the lot or road reserve where the tank is to be located will be identified on the plan of subdivision.	

The strategic static water supply (tank or tanks) will be located no more than 10 minutes travel time from a subject site (at legal road speeds).

The technical requirements (location, number of tanks, volumes, design, construction materials, pipes and fittings), as established by the Guidelines (A4.2, E4 and Schedule 2) and/or the relevant local government, can and will be complied with.

**Supporting Assessment Details:** Hydrants are located on Gamenya Place and Strickland Drive in front of the existing lot as indicated on Figure 3.1.

Any additional hydrants will be installed as per the technical requirements.

Refer to information contained in Appendix D for the firefighting water supply specifications and technical requirements.

## 6 RESPONSIBILITIES FOR IMPLEMENTATION AND MANAGEMENT OF THE BUSHFIRE

### 6.1 Developer Responsibilities – Prior to Issue of Titles

DEVELOPER RESPONSIBILITIES – PRIOR TO ISSUE OF TITLES		
No.	Implementation Actions	Subdivision Clearance
1	<p><i>Condition that may be imposed (refer to Code F1 of Model Subdivision Conditions Schedule, WAPC June 2021 and Guidelines DPLH, 2021 v1.4, s5.3.2)</i></p> <p>Information is to be provided to demonstrate that the measures contained in Section 6.1 and Section 6.2 of the bushfire management plan (v1.0 September 2022), have been implemented during subdivisional works. This information should include a completed 'Certification by Bushfire Consultant' from the bushfire management plan. (Shire of Dalwallinu)</p>	<input type="checkbox"/>
2	<p><i>Condition that may be imposed (refer to Code F2 of Model Subdivision Conditions Schedule, WAPC June 2021 and Guidelines DPLH, 2021 v1.4, s5.3.2)</i></p> <p>A notification, pursuant to Section 165 of the <i>Planning and Development Act 2005</i>, is to be placed on the certificate(s) of title of the proposed lot(s) with a Bushfire Attack Level (BAL) rating of 12.5 or above, advising of the existence of a hazard or other factor.</p> <p>Notice of this notification is to be included on the diagram or plan of survey (deposited plan). The notification is to state as follows:</p> <p><i>"This land is within a bushfire prone area as designated by an Order made by the Fire and Emergency Services Commissioner and is/may be subject to a Bushfire Management Plan. Additional planning and building requirements may apply to development on this land."</i> (Western Australian Planning Commission).</p>	<input type="checkbox"/>
3	<p>Construct the public roads, including any no through roads and perimeter roads, to comply with the technical requirements referenced in the BMP.</p>	<input type="checkbox"/>

## 6.2 Developer / Landowner Responsibilities – Prior to Sale or Occupancy/Operation

DEVELOPER/LANDOWNER RESPONSIBILITIES – PRIOR TO SALE OR OCCUPANCY/OPERATION	
No.	Implementation Actions
1	<p>The local government may condition a development application approval with a requirement for the landowner/proponent to register a notification onto the certificate of title and deposited plan.</p> <p>This will be done pursuant to Section 70A <i>Transfer of Land Act 1893</i> as amended ('Factors affecting use and enjoyment of land, notification on title'). This is to give notice of the bushfire hazard and any restrictions and/or protective measures required to be maintained at the owner's cost.</p> <p>This condition ensures that:</p> <ol style="list-style-type: none"> <li>1. Landowners/proponents are aware their lot is in a designated bushfire prone area and of their obligations to apply the stated bushfire risk management measures; and</li> <li>2. Potential purchasers are alerted to the Bushfire Management Plan so that future landowners/proponents can continue to apply the bushfire risk management measures that have been established in the Plan.</li> </ol>
2	<p>Establish the 'Landowner' Asset Protection Zone (APZ) around habitable buildings (and other structures as required) to satisfy:</p> <ul style="list-style-type: none"> <li>• The minimum required dimensions. These are to be the greatest measurements derived from either the separation distances corresponding to the determined BAL rating for the subject building/structure, or the local government's annual firebreak / hazard reduction notice (issued under s33 of the Bushfires Act 1954), or a combination of these requirements [refer to Appendix B]; and</li> <li>• The standards established by the Guidelines DPLH, 2021 v1.4, Schedule 1, or as varied by the local government through their annually issued firebreak / hazard reduction notice when the variations have been endorsed by the WAPC and DFES as per s4.5.3 of the Guidelines.</li> </ul> <p>If native vegetation is required to be modified or removed, ensure that approval has been received from the relevant authority (refer to the applicable local government for advice).</p> <p>This is the responsibility of the developer.</p>
3	<p>Prior to sale of the subject lots, each individual lot is to be compliant with current version of the Shire of Dalwallinu Firebreak Order issued under s33 of the Bushfires Act 1954.</p> <p>This may include standards for asset protection zones that differ from Schedule 1 in the Guidelines DPLH, 2021 v1.4, with the intent to better satisfy local conditions.</p> <p>[Refer to the 'Siting and Design' assessments against the Bushfire Protection Criteria and the information presented in Appendix B].</p>
4	<p>Prior to relevant building work, inform the builder of the existence of this approved Bushfire Management Plan (BMP). The plan identifies that the development site is within a designated bushfire prone area and states the indicative (or determined) BAL rating(s) that may (or will) be applied to buildings/structures. A BAL assessment report may be required to confirm determined ratings and will be required when ratings are indicative. BAL certificates will need to be issued to accompany building applications.</p> <p>The BMP may also establish, as an additional bushfire protection measure, that construction requirements to be applied will be those corresponding to a specified higher BAL rating.</p> <p>Compliance with the Building Code of Australia (Volumes 1 and 2 of the National Construction Code), will require certain bushfire resistant construction requirements be applied to residential buildings in bushfire prone areas (i.e., Class 1, 2 and 3 and associated Class 10a buildings and decks). Other classes of buildings may also be</p>

required to comply with these construction when established by the relevant authority or if identified as an additional bushfire protection measure within the BMP.

The deemed to satisfy solutions that will meet the relevant bushfire performance requirements are found in AS 3959 – Construction of Building in Bushfire Prone Areas (as amended) and the NASH Standard - Steel Framed Construction in Bushfire Areas (as amended).



### 6.3 Landowner / Occupier Responsibilities – Ongoing Management

LANDOWNER/OCCUPIER – ONGOING MANAGEMENT	
No.	Management Actions
1	<p>Maintain the 'Landowner' Asset Protection Zone (APZ) around habitable buildings (and other structures as required) to satisfy:</p> <ul style="list-style-type: none"> <li>The minimum required dimensions. These are to be the greatest measurements derived from either the separation distances corresponding to the determined BAL rating for the subject building/structure, or the local government's annual firebreak / hazard reduction notice (issued under s33 of the Bushfires Act 1954), or a combination of these requirements [refer to Appendix B]; and</li> <li>The standards established by the Guidelines DPLH, 2021 v1.4, Schedule 1, or as varied by the local government through their annually issued firebreak / hazard reduction notice when the variations have been endorsed by the WAPC and DFES as per s4.5.3 of the Guidelines.</li> </ul>
2	<p>Comply with the Shire of Dalwallinu Firebreak Order issued under s33 of the Bush Fires Act 1954. Check the notice annually for any changes.</p>
3	<p>Ensure that builders engaged to construct dwellings/additions and/or other relevant structures on the lot, are aware of the existence of this approved Bushfire Management Plan (BMP). The plan identifies that the development site is within a designated bushfire prone area and states the indicative (or determined) BAL rating(s) that may (or will) be applied to buildings/structures. A BAL assessment report may be required to confirm determined ratings and will be required when ratings are indicative. BAL certificates will need to be issued to accompany building applications.</p> <p>The BMP may also establish, as an additional bushfire protection measure, that construction requirements to be applied will be those corresponding to a specified higher BAL rating.</p> <p>Compliance with the Building Code of Australia (Volumes 1 and 2 of the National Construction Code), will require certain bushfire resistant construction requirements be applied to residential buildings in bushfire prone areas (i.e., Class 1, 2 and 3 and associated Class 10a buildings and decks). Other classes of buildings may also be required to comply with these construction when established by the relevant authority or if identified as an additional bushfire protection measure within the BMP.</p> <p>The deemed to satisfy solutions that will meet the relevant bushfire performance requirements are found in AS 3959 – Construction of Building in Bushfire Prone Areas (as amended) and the NASH Standard - Steel Framed Construction in Bushfire Areas (as amended).</p>
4	<p>Ensure all future buildings the landowner has responsibility for, are designed and constructed in full compliance with:</p> <ul style="list-style-type: none"> <li>The bushfire resistant construction requirements of the Building Code of Australia (Volumes 1 and 2 of the National Construction Code), as established by the Building Regulations 2012 (WA Building Act 2011); and</li> <li>Any additional bushfire protection measures this Bushfire Management Plan has established are to be implemented.</li> </ul>

## 6.4 Local Government Responsibilities – Ongoing Management

LOCAL GOVERNMENT – ONGOING MANAGEMENT	
No.	Management Actions
1	<p>Monitor landowner compliance with the annual Shire of Dalwallinu Firebreak Order and with any bushfire protection measures that are:</p> <ul style="list-style-type: none"> <li>• Established by this BMP;</li> <li>• Are required to be maintained by the landowner/occupier; and</li> <li>• Are relevant to local government operations.</li> </ul>

## APPENDIX A: DETAILED BAL ASSESSMENT DATA AND SUPPORTING INFORMATION

### A1: BAL Assessment Inputs Common to the Method 1 and Method 2 Procedures

#### A1.1: FIRE DANGER INDICES (FDI/FDI/GFDI)

When using Method 1 the relevant FDI value required to be applied for each state and region is established by AS 3959:2018, Table 2.1. Each FDI value applied in Tables 2.4 – 2.7 represents both the Forest Fire Danger Index (FFDI) and a deemed equivalent for the Grassland Fire Danger Index (GFDI), as per Table B2 in Appendix B. When using Method 2, the relevant FFDI and GFDI are applied.

The values may be able to be refined within a jurisdiction, where sufficient climatological data is available and in consultation with the relevant authority.

Relevant Jurisdiction:	WA	Region:	Whole State	Method 1	Applied FDI:	80
				Method 2	Applied FFDI:	
					Applied GFDI:	

#### A1.2: VEGETATION ASSESSMENT AND CLASSIFICATION

##### Vegetation Types and Classification

In accordance with AS 3959:2018 clauses 2.2.3 and C2.2.3.1, all vegetation types within 100 metres of the 'site' (defined as "the part of the allotment of land on which a building stands or is to be erected"), are identified and classified. Any vegetation more than 100 metres from the site that has influenced the classification of vegetation within 100 metres of the site, is identified and noted. The maximum excess distance is established by AS 3959: 2018 cl 2.2.3.2 and is an additional 100 metres.

Classification is also guided by the Visual Guide for Bushfire Risk Assessment in WA (WA Department of Planning February 2016) and any relevant FPA Australia practice notes.

##### Modified Vegetation

The vegetation types have been assessed as they will be in their natural mature states, rather than what might be observed on the day. Vegetation destroyed or damaged by a bushfire or other natural disaster has been assessed on its expected re-generated mature state. Modified areas of vegetation can be excluded from classification if they consist of low threat vegetation managed in a minimal fuel condition, satisfying AS 3959:2018 s2.2.3.2(f), and there is sufficient justification to reasonable expect that this modified state will exist in perpetuity.

##### The Influence of Ground Slope




Where significant variation in effective slope exists under a consistent vegetation type, these will be delineated as separate vegetation areas to account for the difference in potential bushfire behaviour, in accordance with AS 3959:2018 clauses 2.2.5 and C2.2.5.

#### THE INFLUENCE OF VEGETATION GREATER THAN 100 METRES FROM THE SUBJECT SITE

Vegetation area(s) within 100m of the site whose classification has been influenced by the existence of bushfire prone vegetation from 100m – 200m from the site:

None

Assessment Statement: No vegetation types exist close enough, or to a sufficient extent, within the relevant area to influence classification of vegetation within 100 metres of the subject site.

VEGETATION AREA 1					
Classification	Low threat vegetation				
Types Identified					
Exclusion Clause	2.2.3.2 (e) Non-vegetated areas and (f) Low threat vegetation - high moisture content.				
Effective Slope	Measured	-	Applied Range (Method 1)	-	
Foliage Cover (all layers)	-	Shrub/Heath Height	-	Tree Height	-
Dominant & Sub-Dominant Layers (species as relevant)	Managed gardens in private properties, driveways, roads and Hospital.				
Understorey:	N/A				
Additional Justification:	Not Required. These areas will be managed in perpetuity				
Post Development Assumptions:	N/A				
					
PHOTO ID: 1			PHOTO ID: 2		
					
PHOTO ID: 3					








VEGETATION AREA 2						
Classification	<b>G. GRASSLAND</b>					
Types Identified	Tussock grassland G-22		Open herbfield G-27		Hummock grassland G-20	
Exclusion Clause						
Effective Slope	Measured	flat 0 degrees	Applied Range (Method 1)		Upslope or flat 0 degrees	
Foliage Cover (all layers)	>90%	Shrub/Heath Height	1-2m	Tree Height	Up to 30m	
Dominant & Sub-Dominant Layers (species as relevant)	Unmanaged grasses, much will die off once winter rains finish. A small number of shrubs averaging less than 2 metres in height. Mixed species composition. Several Eucalypt trees within this area, growing to a height of up to 8 metres.					
Understorey:						
Additional Justification:	Not Required.					
Post Development Assumptions:	<p>It is anticipated that sections of Area 2 within the boundaries of the subject site (Stage 1) will be managed due to private ownership and for Asset Protection Zone (APZ) Implementation.</p> <p>Note – the balance of the grassland area to the east of the subject site – Stage 1 is anticipated to be further subdivided in the future.</p> <p>Note – The removal or modification to native vegetation is subject to Local Government Authority Approvals.</p>					
						
PHOTO ID: 4			PHOTO ID: 5			
						
PHOTO ID: 6			PHOTO ID: 7			




PHOTO ID: 8



PHOTO ID:9

VEGETATION AREA 3						
Classification	<b>B. WOODLAND</b>					
Types Identified	Woodland B-05	Low woodland B-07	Hummock grassland G-20			
Exclusion Clause						
Effective Slope	Measured	flat 0 degrees	Applied Range (Method 1)		Upslope or flat 0 degrees	
Foliage Cover (all layers)	10-30%	Shrub/Heath Height	1-2m	Tree Height	Up to 30m	
Dominant & Sub-Dominant Layers (species as relevant)	Sparse tree cover to 20% with height up to 10m. Primarily Eucalypts and native shrubs of mixed species composition.					
Understorey:	Grasses that will die off once the winter rains finish.					
Additional Justification:	Not Required.					
Post Development Assumptions:	Apart from a small area to the east of the development site which will be developed in the stage two of the subdivision the balance of the Woodland area is offsite so cannot be managed or removed by the landowner.					
						
PHOTO ID: 10						
						
PHOTO ID: 12						

VEGETATION AREA 4						
Classification	<b>G. GRASSLAND</b>					
Types Identified	Tussock grassland G-22	Open herbfield G-27	Hummock grassland G-20			
Exclusion Clause						
Effective Slope	Measured	flat 0 degrees	Applied Range (Method 1)		Upslope or flat 0 degrees	
Foliage Cover (all layers)	>90%	Shrub/Heath Height	1-2m	Tree Height	Up to 30m	
Dominant & Sub-Dominant Layers (species as relevant)	Grasses to a height of 500mm, in this photo grasses are managed underneath Eucalypt trees around buildings. Most grasses will die off once summer arrives.					
Understorey:	Managed and unmanaged grasses.					
Additional Justification:	Not Required.					
Post Development Assumptions:	This area is offsite and vegetation cannot be managed or removed by the landowner.					
						
PHOTO ID: 13						

### A1.3: EFFECTIVE SLOPE

#### Measuring

Effective slope refers to the slope "under the classified vegetation which most significantly influences bushfire behaviour (AS 3959:2018, clause B4, CB4). It is not the average slope.

It is described as upslope, flat or downslope when viewed from the exposed element (e.g., building) looking towards the vegetation – and measured in degrees. Ground slope has a direct and significant influence on a bushfire's rate of spread and intensity, which increases when travelling up a slope.

The slope under the vegetation in closest proximity to the exposed element(s), over the distance that will most likely carry the entire depth of the flaming front, will be a significant consideration in the determination of the effective slope. This distance is determined as a function of the potential quasi-steady rate of spread and expected residence time (i.e., the flaming combustion period at a single point on the ground), of a bushfire in the specific vegetation type/landscape scenario.

#### Slope Variation Within Areas of Vegetation

Where a significant variation in effective slope exists under a consistent vegetation type, these will be delineated as separate vegetation areas to account for the difference in potential bushfire behaviour, in accordance with AS 3959:2018 clauses 2.2.5 and C2.2.5.

#### Slope Variation Due to Multiple Development Sites

When the effective slope, under a given area of bushfire prone vegetation, will vary significantly relative to multiple proposed development sites (exposed elements), then the effective slopes corresponding to each of the different locations, are separately identified.

The relevant (worst case) effective slope is determined in the direction corresponding to the potential directions of fire spread towards the subject building(s).

#### Differences in Application of Effective Slope - AS 3959:2018 Method 1 versus Method 2 Procedures



The Method 1 procedure provides five different slope ranges from flat (including all upslopes) to 20 degrees downslope to define the effective slope and bushfire behaviour model calculations apply the highest value in each range (i.e., 0°, 5°, 10°, 15° or 20°).

The Method 2 procedure requires an actual slope (up or down in degrees) to be determined. AS 3959:2018, clause B1 limits the effective slope that can be applied to 30 degrees downslope and 15 degrees upslope. Where any upslope is greater than 15 degrees, then 15 degrees is to be used.

#### **SITE ASSESSMENT DETAILS - EXPLANATION & JUSTIFICATION**

The effective slopes determined from the site assessment are recorded in Table 3.1 of this Bushfire Management Plan.

## A1.4: SEPARATION DISTANCE

### Measuring

The separation distance is the distance in the horizontal plane between the receiver (building/structure or area of land being considered) and the edge of the classified vegetation (AS 3959:2018, clause 2.2.4)

The relevant parts of a building/structure from which the measurement is taken is the nearest part of an external wall or where a wall does not exist, the supporting posts or columns. Certain parts of buildings are excluded including eaves and roof overhangs.

The edge of the vegetation, for forests and woodlands, will be determined by the unmanaged understorey rather than either the canopy (drip line) or the trunk (AS 3959:2018, clause C2.2.5).

### Measured Separation Distance as a Calculation Input

If a separation distance can be measured because the location of the building/structure relative to the edge of the relevant classified vegetation is known, this figure can be entered into the BAL calculation. The result is a determined BAL rating.

### Assumed Separation Distance as a Calculation Input

When the building/structure location within the lot is not known, an assumed building location may be applied that would establish the closest positioning of the building/structure relative to the relevant area of vegetation.

The assumed location would be based on a factor that puts a restriction on a building location such as:

- An established setback from the boundary of a lot, such as a residential design code setback or a restrictive covenant; or
- Within an established building envelope.

The resultant BAL rating would be indicative and require later confirmation (via a Compliance Report) of the building/structure actual location relative to the vegetation to establish the determined BAL rating.

### Separation Distance as a Calculation Output

With the necessary site specific assessment inputs and using the AS 3959:2018 bushfire modelling equations, the range of separation distances that will correspond to each BAL rating (each of which represents a range of radiant heat flux), can be calculated. This has application for bushfire planning scenarios such as:

- When the separation distance cannot be measured because the exact location of the exposed element (i.e., the building, structure or area), relative to classified vegetation, is yet to be determined.

In this scenario, the required information is the identification of building locations onsite that will correspond to each BAL rating. That is, indicative BAL ratings can be derived for a variety of potential building/structure locations; or

- The separation distance is known for a given building, structure or area (and a determined BAL rating can be derived), but additional information is required regarding the exposure levels (to the transfer of radiant heat from a bushfire), of buildings or persons, that will exist at different points within the subject site.

The calculated range of separation distances corresponding to each BAL rating can be presented in a table and/or illustrated as a BAL Contour Map – whichever is determined to best fit the purpose of the assessment.

For additional information refer to the information boxes in Section 3 'Bushfire Attack Levels (BAL) - Understanding the Results and Section 3.2. 'Interpretation of the BAL Contour Map'.

## SITE ASSESSMENT DETAILS - EXPLANATION & JUSTIFICATION

For the development the applicable separation distances values are derived from calculations applying the assessed site data. They are an output value, not an input value and therefore are not presented or justified in this appendix.

The derived values are presented in Section 3, Table 3.2 and illustrated as a BAL contour map in Figure 3.2.

## APPENDIX B: ONSITE VEGETATION MANAGEMENT - THE APZ

### THE ASSET PROTECTION ZONE (APZ) - DESCRIPTION

This is an area surrounding a habitable building containing either no fire fuels and/or low threat fire fuels that are managed in a minimal fuel condition. The primary objectives include:

- To ensure the building is sufficiently separated from the bushfire hazard to limit the impact of its direct attack mechanisms. That is, the dimensions of the APZ will, for most site scenarios, remove the potential for direct flame contact on the building, reduce the level of radiant heat to which the building is exposed and ensure some reduction in the level of ember attack (with the level of reduction being dependent on the vegetation types of present);
- To ensure any vegetation retained within the APZ presents low threat levels and prevents surface fire spreading to the building;
- To ensure other combustible materials that can result in consequential fire (typically ignited by embers) within both the APZ and parts of the building, are eliminated, minimised and/or appropriately located or protected. (Note: The explanatory notes in the Guidelines provide some guidance for achieving this objective and other sources are available. Research shows that consequential fire, ignited by embers, is the primary cause of building loss in past bushfire events); and
- To provide a defensible space for firefighting activities.

### B1: The Dimensions and Location of the APZ to be Established and Maintained

#### UNDERSTANDING THE APZ PLANNING ASSESSMENT VERSUS ITS IMPLEMENTATION REQUIREMENTS

##### THE 'PLANNING BAL-29' APZ

*It is important to understand is that the 'Planning BAL-29' APZ is not necessarily the size of the APZ that must be physically established and maintained by a landowner. It is a screening tool for making planning approval decisions.*

The assessment against the Bushfire Protection Criteria is conducted for planning approval purposes. To satisfy acceptable solution 'A2.1: Asset Protection Zone', it must be demonstrated that certain minimum separation distances between the relevant building/structure and different classes of bushfire prone vegetation either exist or can be created and will remain in perpetuity.

The required minimum separation distances are those that will ensure the potential radiant heat impact on relevant existing or future buildings does not exceed 29 kW/m<sup>2</sup>. The area of land contained within these separation distances is described as an Asset Protection Zone (APZ) and is to be comprised of non-vegetated land or low threat vegetation managed in a minimal fuel condition.

The applicable minimum separation distances will vary dependent on the vegetation types, the slope of the land they are growing on and other relevant factors specific to the site and its use.

**The resulting 'Planning BAL-29' APZ dimensions may extend outside subject lot boundaries.**

It is the purpose of the bushfire consultant's 'Supporting Assessment Detail', that is presented in the assessment against the acceptable solution A2.1, that will identify and justify how any offsite land within the 'Planning BAL-29 APZ (which the subject landowner has no authority or responsibility to manage), will meet the requirements of being either non-vegetated land or low threat vegetation managed in a minimal fuel condition and likely to remain in this state in perpetuity. Or otherwise, explain how this condition cannot be met.

*It is the 'Planning BAL-29' APZ dimensions that will be stated in relevant tables and shown on maps as necessary in this BMP. The exceptions are the tables that are included within this appendix - when relevant to the subject lot(s) - which will present 'BAL Rating' and 'Landowner' APZ dimensions.*

### THE 'BAL RATING' APZ

The 'BAL Rating' APZ will ensure that the potential radiant heat exposure of the building/structure will be limited to the level that the applied construction requirements, (i.e., those corresponding to the building/structure's determined BAL rating), are designed to resist.

The minimum dimensions of the 'BAL Rating' APZ to be established and maintained will be those that correspond to the determined BAL rating for the specific building/structure. They will account for the specific conditions on and surrounding the subject lot.

*The required dimensions of the 'BAL Rating' APZ establish the size of the APZ that must physically exist either entirely within a subject lot or in combination with an area of adjoining land.*

*If in combination with adjoining (offsite) land, it must be justified how the offsite land can most reasonably be expected to either remain unvegetated or be able to meet and maintain the APZ Standards in perpetuity, without any actions by the owner of the subject lot.*

The applicable determined BAL rating will have been stated in the relevant assessment section of this BMP when it can be assessed as a 'determined' rather than 'indicative' rating. Otherwise, it will be shown on the BAL Certificate that is submitted as part of a building application.

### THE 'LANDOWNER' APZ

**Dimensions:** The 'Landowner' APZ is to be established and maintained by the owner of the subject lot. The minimum dimensions are the 'BAL Rating' APZ dimensions except that they will be limited to the distance that they can be established within the subject lot. (Note: Any removal of native vegetation may require the approval of the relevant authority.

The remaining required separation distance outside the lot has been assessed by the bushfire consultant to be most likely to remain in a low threat state in perpetuity without any actions to be taken by the owner of the subject lot.

These minimum 'within the lot' APZ dimensions will only be greater when the relevant local government's annual firebreak / hazard reduction notice (issued under s33 of the Bushfires Act 1954), specifies the APZ dimensions to be applied within the lot and they are greater. Consequently, the 'Landowner' APZ dimensions can be a combination of the 'BAL Rating' Dimensions and the Local Government requirements. Check their annual notice for revisions to these requirements.

*The dimensions of the 'Landowner' APZ establish the size of the APZ that must be established and maintained by the landowner within the subject lot.*

**Location:** The 'Landowner' APZ for which the landowner has the responsibility to establish and maintain, is that which will exist entirely within the boundaries of the relevant lot, unless an approved formal and enforceable agreement allows them to manage a specified area of land external to the subject lot.

In most cases the landowner will only have authority and responsibility to establish and manage the APZ within the subject lot.

Otherwise, when there is a remaining part of the 'BAL Rating' APZ existing outside the subject lot, then these areas of land will, in most situations, include non-vegetated areas (e.g., roads / parking / drainage / water body), formally managed areas of vegetation (e.g., public open space / recreation areas / services installed in a common section of land) or an APZ on a neighbouring lot that is required to be established and maintained by the owner of that adjoining lot.

*For vulnerable land uses, the 'BAL Rating' APZ and 'Landowner' APZ will also refer to the dimensions corresponding to radiant heat impact levels of 10 kW/m<sup>2</sup> and 2 kW/m<sup>2</sup> (calculated using 1200K flame temperature).*

*For development applications only, the 'Landowner' APZ dimensions are also shown on the Property Bushfire Management Statement in Section 6.3.1 of this BMP when it is a required component of the Bushfire Management Plan.*

Table B1.1: The applicable 'Landowner' APZ Dimensions when indicative BAL ratings have been established by the BMP.

THE 'LANDOWNER' APZ DIMENSIONS TO BE ESTABLISHED AND MAINTAINED							
Relevant Buildings(s)	Classified Vegetation  Refer to Fig 3.1	Minimum Required Separation Distances (m) - Building to Vegetation					
		The 'BAL Rating' APZ				As Directed by the Applicable Local Government Firebreak / Hazard Reduction Notice	The 'Landowner' APZ (limited to the subject lot boundary unless otherwise justified)
		Corresponding to the Stated 'Indicative' BAL					
		BAL-29	BAL-19	BAL-12.5	BAL-LOW		
All Proposed Lots	Area 1	N/A	N/A	N/A	N/A	N/A	Will be dependent on the subsequent 'Determined' BAL rating.
	Area 2	8	12	17	50	N/A	
	Area 3	14	20	29	100	N/A	It is then to be calculated as the greater of the 'BAL Rating' distance or the 'Firebreak Notice' distance, and no greater than the distance to the lot boundary.
	Area 4	8	12	17	50	N/A	
<b>Comments:</b>							

## B2: The Standards for the APZ as Established by the Guidelines (DPLH, v1.4)

Within the Guidelines (source: <https://www.wa.gov.au/government/document-collections/state-planning-policy-37-planning-bushfire-prone-areas>), the management Standards are established by:

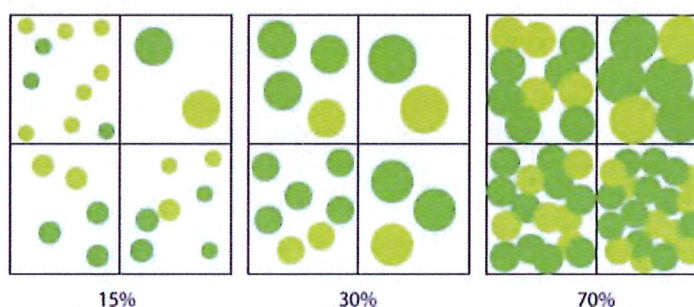
- Schedule 1: Standards for Asset Protection Zones (see extract below) established by the Guidelines; and
- The associated explanatory notes (Guidelines E2) that address (a) managing an asset protection zone (APZ) to a low threat state (b) landscaping and design of an asset protection zone and (c) plant flammability.

## 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>

Figure 19: Tree canopy cover – ranging from 15 to 70 per cent at maturity



<p>Shrub* and scrub* (0.5 metres to six metres in height). Shrub and scrub &gt;6 metres in height are to be treated as trees.</p>	<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>
<p>Ground covers* (&lt;0.5 metres in height. Ground covers &gt;0.5 metres in height are to be treated as shrubs)</p>	<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>
<p>Grass</p>	<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>
<p>Defendable space</p>	<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>
<p>LP Gas Cylinders</p>	<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

### **B3: The Standards for the APZ as Established by the Local Government**

Refer to the firebreak / hazard reduction notice issued annually (under s33 of the Bushfires Act 1954) by the relevant local government. It may state Standards that vary from those established by the Guidelines and that have been endorsed by the WAPC and DFES as per Section 4.5.3 of the Guidelines.

A copy of the applicable notice is not included here as they are subject to being reviewed and modified prior to issuing each year. Refer to ratepayers notices and/or the local government's website for the current version.

## B4: Maintaining Low Threat and Non-Vegetated Areas Excluded from Classification

AS 3959 establishes the methodology for determining a bushfire attack level (BAL). The methodology includes the classification of the subject site's surrounding vegetation according to their 'type' and the application of the corresponding bushfire behaviour models to determine the BAL. Certain vegetation can be considered as low threat and excluded from classification. Where this has occurred in assessing the site, the extract from AS3959:2018 below state the requirements (including the size of the vegetation area if relevant to the assessment) for maintenance of those areas of land.

15	AS 3959:2018
<p><b>2.2.3.2 Exclusions—Low threat vegetation and non-vegetated areas</b></p> <p>The following vegetation shall be excluded from a BAL assessment:</p> <ul style="list-style-type: none"> <li>(a) Vegetation of any type that is more than 100 m from the site.</li> <li>(b) Single areas of vegetation less than 1 ha in area and not within 100 m of other areas of vegetation being classified vegetation.</li> <li>(c) Multiple areas of vegetation less than 0.25 ha in area and not within 20 m of the site, or each other or of other areas of vegetation being classified vegetation.</li> <li>(d) Strips of vegetation less than 20 m in width (measured perpendicular to the elevation exposed to the strip of vegetation) regardless of length and not within 20 m of the site or each other, or other areas of vegetation being classified vegetation.</li> <li>(e) Non-vegetated areas, that is, areas permanently cleared of vegetation, including waterways, exposed beaches, roads, footpaths, buildings and rocky outcrops.</li> <li>(f) Vegetation regarded as low threat due to factors such as flammability, moisture content or fuel load. This includes grassland managed in a minimal fuel condition, mangroves and other saline wetlands, maintained lawns, golf courses (such as playing areas and fairways), maintained public reserves and parklands, sporting fields, vineyards, orchards, banana plantations, market gardens (and other non-curing crops), cultivated gardens, commercial nurseries, nature strips and windbreaks.</li> </ul> <p>NOTES:</p> <ul style="list-style-type: none"> <li>1 Minimal fuel condition means there is insufficient fuel available to significantly increase the severity of the bushfire attack (recognizable as short-cropped grass for example, to a nominal height of 100 mm)</li> <li>2 A windbreak is considered a single row of trees used as a screen or to reduce the effect of wind on the leeward side of the trees.</li> </ul>	



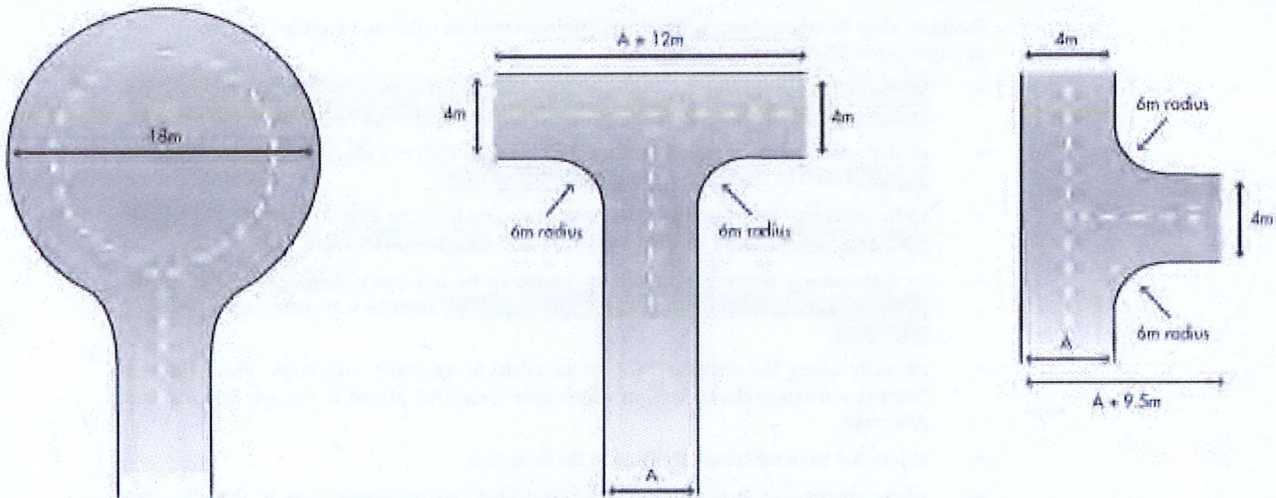
## APPENDIX C: TECHNICAL REQUIREMENTS FOR VEHICULAR ACCESS

The design/layout requirements for access are established by the acceptable solutions of the Guidelines (DPLH, 2021 v1.4) Element 3 and vary dependent on the access component, the land use and the presence of 'vulnerable' persons. Consequently, the best reference source are the Guidelines. The technical requirements that are fixed for all components and uses are presented in this appendix.

**GUIDELINES TABLE 6, EXPLANATORY NOTES E3.3 & E3.6 AND RELEVANT ACCEPTABLE SOLUTIONS**

Technical Component	Vehicular Access Types / Components			
	Public Roads	Emergency Access Way <sup>1</sup>	Fire Service Access Route <sup>1</sup>	Battle-axe and Private Driveways <sup>2</sup>
Minimum trafficable surface (m)	In accordance with A3.1	6	6	4
Minimum Horizontal clearance (m)	N/A	6	6	6
Minimum Vertical clearance (m)	4.5			
Minimum weight capacity (t)	15			
Maximum Grade Unsealed Road <sup>3</sup>	As outlined in the IPWEA Subdivision Guidelines	1:10 (10%)		
Maximum Grade Sealed Road <sup>3</sup>		1:7 (14.3%)		
Maximum Average Grade Sealed Road		1:10 (10%)		
Minimum Inner Radius of Road Curves (m)		8.5		

**Turnaround Area Dimensions for No-through Road, Battle-axe Legs and Private Driveways <sup>4</sup>**



**Passing Bay Requirements for Battle-axe leg and Private Driveway**

When the access component length is greater than the stated maximum, passing bays are required every 200m with a minimum length of 20m and a minimum additional trafficable width of 2m (i.e. the combined trafficable width of the passing bay and constructed private driveway to be a minimum 6m).

### Emergency Access Way – Additional Requirements

Provide a through connection to a public road, be no more than 500m in length, must be signposted and if gated, gates must be open the whole trafficable width and remain unlocked.

<sup>1</sup> To have crossfalls between 3 and 6%.

<sup>2</sup> Where driveways and battle-axe legs are not required to comply with the widths in A3.5 or A3.6, they are to comply with the Residential Design Codes and Development Control Policy 2.2 Residential Subdivision.

<sup>3</sup> Dips must have no more than a 1 in 8 (12.5% or 7.1 degree) entry and exit angle.

<sup>4</sup> The turnaround area should be within 30m of the main habitable building.

## APPENDIX D: TECHNICAL REQUIREMENTS FOR FIREFIGHTING WATER SUPPLY

### D1: Reticulated Areas – Hydrant Supply

The Guidelines state "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."

The main scheme water suppliers / authorities in WA are The Water Corporation, AqWest – Bunbury Water Corporation and Busselton Water Corporation. Various local authority exists in other non-scheme and regional areas. However, most existing fire hydrants are connected to Water Corporation water mains.

Consequently, the hydrant location specifications from The Water Corporation's 'No 63 Water Reticulation Standard' (Ver 3 Rev 15) are provided in the extract below with the key distances relevant to bushfire planning assessments being highlighted. This Standard is deemed to be the baseline criteria for developments and should be applied unless different local water supply authority conditions apply. Other applicable specification will be found in the Standard.

*Note: The maximum distance from a hydrant to the rear of a lot/building is generally interpreted as not applicable to large lot sizes where the maximum distance becomes an impractical limitation i.e., typically rural residential areas.*

Design Standard DS 63  
Water Reticulation Standard



#### 2.2.1.5 Appurtenances

##### c. Hydrants

Hydrants shall be screw-down hydrant with built-in isolation valve and installed only on DN100 or larger pipes. Hydrants shall be located:

- so that the maximum distance between a hydrant and the rear of a building envelope (or in the absence of a building envelope the rear of the lot) shall be 120m;
- so that spacing (as measured by hose-run) between hydrants in non-residential or mixed use areas shall be maximized and no greater than 100m;
- so that spacing (as measured by hose-run) between hydrants in residential areas with lots per dwelling < 10,000m<sup>2</sup> shall be maximized and no greater than 200m;
- so that spacing between hydrants (as measured by hose-run) in rural residential areas where minimum lots per dwelling is >10,000 m<sup>2</sup> (1ha) shall be maximized and no greater than 400m;
- centrally along the frontage of a lot to avoid being under driveways, unless the lot features a frontage 6m or less, in which case it shall be placed to the side opposite the driveway;
- at lots that have the widest frontage in the local area;
- where appropriate at the truncation of road junctions or intersections so that they can serve more than one street and can be readily located;
- on both sides of the major roads at staggered intervals where there are mains on both sides of the road;
- at major intersections on dual multi-lane roads, where two hydrants are to be sited on diagonally opposite corners;
- hydrants should be located at least 20m from traffic calming devices i.e., median slow points or chokers, chicanes, mini traffic circles, and intersection 'pop-outs' to ensure traffic is not impeded;
- in a position not less than 10m from any high voltage main electrical distribution equipment such as transformers and distribution boards, liquefied petroleum gas or other combustible storage;
- directly on top of the main using a tee unless proved to be impractical.

## D2: Non-Reticulated Areas – Static Supply

For specified requirements, refer to the Guidelines Element 4: Water – Acceptable Solution A4.2, Explanatory Notes E4 (that provide water supply establishment detail under the headings of water supply; independent water and power supply; strategic water supplies, alternative water sources and location of water tanks) and the technical requirements established by Schedule 2 (reproduced below).

### 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.

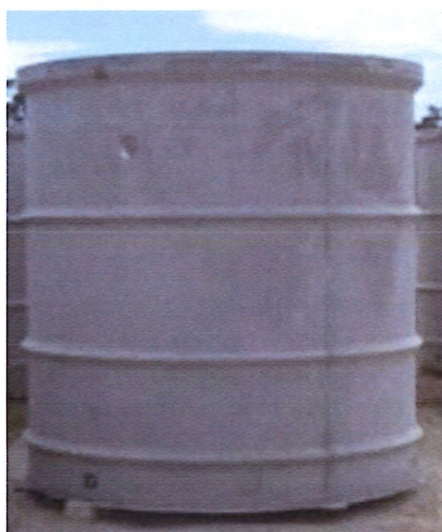
###### 2.2.2.2 Remote outlets

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.

EXAMPLE CONSTRUCTION AND FITTINGS



Strategic 47,000 Litre Concrete Tank & Protected Fittings



10,000 Litre Concrete Tank

Storz and Camlock Couplings



Full Flow 50mm Ball Valve

Full Flow 50mm Gate Valve and Male Camlock

## 9.3 CORPORATE SERVICES

### 9.3.1 Accounts for Payment for October 2022\*

<b>Report Date</b>	22 November 2022
<b>Applicant</b>	Shire of Dalwallinu
<b>File Ref</b>	FM/9 Financial Reporting
<b>Previous Meeting Reference</b>	Nil
<b>Prepared by</b>	Christie Andrews, Senior Finance Officer
<b>Supervised by</b>	Ally Bryant, Manager Corporate Services
<b>Disclosure of interest</b>	Nil
<b>Voting Requirements</b>	Simple Majority
<b>Attachments</b>	Summary of Accounts for Payment

#### **Purpose of Report**

Council is requested to consider the acceptance and approval of the Schedule of Accounts for Payment.

#### **Background**

A list of invoices paid for the month of October 2022 from the Municipal Account, to the sum of \$1,336,372.92 paid by EFT is attached together with a list of bank fees, payroll, direct debit payments, loan payments and transfer to Term Deposits. These payments total \$1,668,525.83. There were no payments from the Trust Account. Total payments from all accounts being \$1,668,525.83 have been listed for Council's ratification.

#### **Consultation**

In accordance with the requirements of the *Local Government Act 1995* a list of accounts paid, by approval of the Chief Executive Officer under Council's delegated authority, is to be completed for each month showing:

- The payees names
- The amount of the payments
- Sufficient information to identify the payment
- The date of the payment

The attached list meets the requirements of the Financial Regulations,

In addition to the above statutory requirements, Financial Management Regulation Section 13(4) requires 'the total of the other outstanding accounts be calculated and a statement be presented to Council at the next Council meeting'.

#### **Legislative Implications**

##### State

*Local Government Act 1995*

*Local Government (Financial Management) Regulations 1996*

#### **Policy Implications**

Nil



## Financial Implications

Payments are in accordance with the adopted budget for 2022/2023.

## Strategic Implications

Nil

## Site Inspection

Not applicable

## Triple Bottom Line Assessment

### Economic implications

There are no known significant economic implications associated with this proposal.

### Social implications

There are no known significant social implications associated with this proposal.

### Environmental implications

There are no known significant environmental implications associated with this proposal.

## Officer Comment

Accounts for Payments are in accordance with the adopted budget for 2022/2023 or authorised by separate resolution.

## Officer Recommendation/Resolution

### **MOTION 10003**

Moved            Cr SC Carter  
Seconded       Cr KJ Christian

That Council, in accordance with the requirements of sections 13(1), 13(3), and 13(4) of the *Local Government (Financial Management) Regulations 1996* a list of payments made in October 2022 under Chief Executive Officer's delegated authority is endorsed in respect to the following bank accounts:

Municipal Fund Account totalling \$1,668,525.83 consisting of:

EFT Payments (EFT13708-EFT13807)	\$1,336,372.92
EFT Payments (Payroll)	\$122,822.00
Direct Debit – Superannuation (DD16901.1-12 & DD16922.1-12)	\$25,058.16
Direct Debit – Credit Card (DD16911.1)	\$8,235.25
Direct Debit – Gym Equipment Lease (DD16888.1)	\$5,144.45
Direct Debit – Housing Bonds (DD16902.1 & DD16917.1)	\$207.00
Direct Debit – Payments to Department of Transport	\$132,551.80
Bank Fees	\$2,384.82
Loan Payment Loan 157 – Dalwallinu Discovery Centre	\$35,749.43

**CARRIED 8/0**



**EFT PAYMENTS FOR THE MONTH OF OCTOBER 2022**

Chq/EFT	Date	Name	Description	Amount
EFT13708	06/10/2022	On Hold On Line	Monthly on Hold message - Sep 22	77.00
EFT13709	06/10/2022	KEITH LESLIE CARTER	Member attendance fees - Q2	3,147.60
EFT13710	06/10/2022	KAREN MARIE MCNEILL	Member attendance fees - Q2	1,520.00
EFT13711	06/10/2022	JOHN R WALLIS ENGINEERING	Assorted supplies for Admin and Works - September 22	1,518.02
EFT13712	06/10/2022	THE PAPER COMPANY OF AUSTRALIA	50x reams of A4 paper	272.25
EFT13713	06/10/2022	WATER CORPORATION	Water Usage July - Sep 2022, Service charge Sep-Oct 22	334.17
EFT13714	06/10/2022	AUSTRALIA POST - SHIRE	Postage charges for shire admin Sep 22	430.05
EFT13715	06/10/2022	KLEENHEAT GAS	LPG Bulk gas delivery for Dalwallinu Caravan Park	748.80
EFT13716	06/10/2022	BOC LIMITED	Monthly container rental	38.12
EFT13717	06/10/2022	Bridgestone Service Centre Dalwallinu	New tyres for DL 103	1,440.00
EFT13718	06/10/2022	TELSTRA	Phone usage to 18/9/22 & service/rental to 18/10/22	103.54
EFT13719	06/10/2022	BURGESS RAWSON (WA) PTY LTD	Water Usage July - Sep 2022	221.53
EFT13720	06/10/2022	TOLL IPEC PTY LTD	Freight charges for Shire Jul-Sep 22	538.52
EFT13721	06/10/2022	PUREWATER POOL SERVICES	FAC Chlorine Probes	1,564.75
EFT13722	06/10/2022	STEVEN CLIFFORD CARTER	Member attendance fees - Q2	1,625.00
EFT13723	06/10/2022	SUZANNE OWENS	Dalwallinu Discovery Centre - Tourist Season Cover	3,000.00
EFT13724	06/10/2022	ORIGIN	Annual rent on Rec Centre gas tank	599.50
EFT13725	06/10/2022	ROWDY'S ELECTRICAL	Assorted electrical works September 2022	1,007.66
EFT13726	06/10/2022	Access 1 Security Systems	Alarm monitoring service Oct - Dec 22	283.92
EFT13727	06/10/2022	The Rural Building Company Pty Ltd	Progress payment for construction of 2 Bell Street, Dalw	120,159.00
EFT13728	06/10/2022	R n R Auto Electrics	Repairs to JD Mower	165.00
EFT13729	06/10/2022	Jemma Louise Counsel	Member attendance - Q2	1,773.44
EFT13730	06/10/2022	P & J Transport Pty Ltd	Freight charges on Onga boost pump for pool	47.30
EFT13731	06/10/2022	Civil Engineering Project Management Pty. Ltd	Consultant for DRFAWA Works - AGRN962 - Sep 22	31,416.00
EFT13732	06/10/2022	Dalwallinu Foodworks	Assorted supplies for Admin, Council and Events -September 2022	227.16
EFT13733	06/10/2022	Diane Shirley Cream	Member attendance fees - Q2	1,520.00
EFT13734	06/10/2022	Department Of Mines, Industry Regulations And Safety	BSL collected for September 22	89.74
EFT13735	06/10/2022	Tractus Australia	Supply and fit s/hand tyre to DL10324	124.00
EFT13736	06/10/2022	RICOH FINANCE	Lease fees for Shire admin printers October 22	507.09
EFT13737	06/10/2022	Felton Industries	Bench Seats x 2 plus delivery	1,688.50
EFT13738	06/10/2022	Rosaleen Ann De Beer	Refund of squash key bond	70.00
EFT13739	06/10/2022	Lynette Joan Fitzsimons	Refund of venue & key bond for hire 17/9/22	280.00
EFT13740	06/10/2022	TELAIR PTY LTD	Shire admin NBN service fee October 22	430.90
EFT13741	06/10/2022	Poolshop Online Pty Ltd	Pool chemicals & Onga Boost Pump	6,756.12
EFT13742	06/10/2022	Pool Robotics Perth	Repair & service to Dolphin Wave 100WB.	2,585.95
EFT13743	06/10/2022	Hall & Wilcox Lawyers	Contract preparation & sale - Lot 572 Sawyer Ave, Dalwallinu	1,341.64
EFT13744	06/10/2022	Three Sons Pty Ltd	Provision of GP Services & Cleaning contribution - Oct -Dec 22	56,528.33
EFT13745	06/10/2022	WITHERS & ASSOCIATES PTY LTD	Develop Public Health Plan for Shire of Dalwallinu	4,354.90
EFT13746	06/10/2022	JMH Group WA	60,000km service on DL 281	765.12
EFT13747	06/10/2022	SuperSealing	Crack Seal repairs to various town streets	21,120.00

EFT13748	06/10/2022	Jon Lennon Entertainment	Deposit for Retro Musical Bingo Show - March 23	200.00
EFT13749	06/10/2022	KALANNIE COUNTRY WOMENS ASSOCIATION	Dalwallinu Discovery Centre - Tourist Season Cover	1,000.00
EFT13750	06/10/2022	NOEL WILLIAM MILLS	Member attendance - Q2	1,245.00
EFT13751	06/10/2022	Down To Earth Training & Assessing	EWP and Working at Heights, travel and accommodation	6,254.00
EFT13752	06/10/2022	MELISSA MAE HARMS	Member attendance - Q2	1,509.00
EFT13753	06/10/2022	KAREN JOY CHRISTIAN	Member attendance fees - Q2	1,520.00
EFT13754	06/10/2022	DALWALLINU COMMUNITY RESOURCE CENTRE	Advertising in TL - Oct 22	94.50
EFT13755	12/10/2022	CHAD PHILIP MCKAY	Refund of rent paid in advance	496.00
EFT13756	12/10/2022	McLeods Barristers & Solicitors	Legal advice - unauthorised removal of gravel	659.45
EFT13757	12/10/2022	Liberty Plumbing & Gas	Plumbing repairs - October 22	350.00
EFT13758	12/10/2022	Kleen West Distributors	Cleaning products	1,740.20
EFT13759	12/10/2022	River Hill WA Pty Ltd	Contract Works - AGRN 962	492,891.30
EFT13760	12/10/2022	KATHLEEN GRACE HARRIS	Rates refund for A6453	358.32
EFT13761	12/10/2022	ANNA MARIA REEVES	Refund of venue & key bond for hire 1/10/22	280.00
EFT13762	12/10/2022	BOEKEMAN MACHINERY	Return of equipment bond for hire 5/10/22	50.00
EFT13763	12/10/2022	GLEN NATHAN JONES	Refund of bond paid for hire 7/10/22	350.00
EFT13764	20/10/2022	Elders Scholz Rural	Refund of venue & key bonds for hire 14/10/22 & Chemicals	857.00
EFT13765	20/10/2022	T-QUIP	4 x side broom	740.00
EFT13766	20/10/2022	JASON SIGNMAKERS	Assorted signs for September 22	8,473.79
EFT13767	20/10/2022	WATER CORPORATION	Water Usage - Jul-Sep 22 & services Sep-Oct 22	152.45
EFT13768	20/10/2022	WRIGHT EXPRESS FUEL CARDS AUSTRALIA LTD	Fuel for September 22	3,311.94
EFT13769	20/10/2022	AVON WASTE	Waste collections for Sep 2022	20,343.46
EFT13770	20/10/2022	TELSTRA	Assorted phone usage to 6/10/22 & service/rental to 6/11/22	2,259.31
EFT13771	20/10/2022	DEPUTY COMMISSIONER OF TAXATION	Business Activity Statement for September 2022	219,254.00
EFT13772	20/10/2022	OFFICEWORKS	October Stationery	123.05
EFT13773	20/10/2022	SYNERGY	Electricity Usage - Streetlights - Aug-Oct 22	13,812.00
EFT13774	20/10/2022	Department Of Fire And Emergency Services	2022/23 Q2 - Emergency Services Levy	7,268.38
EFT13775	20/10/2022	TOLL IPEC PTY LTD	Freight on works uniforms	13.84
EFT13776	20/10/2022	ROWDY'S ELECTRICAL	Electrical work September 22	272.57
EFT13777	20/10/2022	DAVE WATSON CONTRACTING PTY LTD	Prune trees in and around Kalannie	907.50
EFT13778	20/10/2022	LGIS WA	Insurance excess claim for claim MO0057350	500.00
EFT13779	20/10/2022	Rebecca Jane Wilson	Refund of key & venue bond	700.00
EFT13780	20/10/2022	Central Wheatbelt Biosecurity Association Inc	Refund of venue bond for hire 10/10/22	210.00
EFT13781	20/10/2022	River Engineering	Design and Survey Annetts Rd	12,361.14
EFT13782	20/10/2022	Ixom Operations Pty Ltd	Container service fee for Sep 22	81.84
EFT13783	20/10/2022	Liberty Plumbing & Gas	Bathroom Upgrades - part payment	9,372.00
EFT13784	20/10/2022	Todd Anthony McNeill	Refund of key bond for hire 10/10/22	70.00
EFT13785	20/10/2022	Totally Workwear Joondalup	Uniforms for works staff	1,452.00
EFT13786	20/10/2022	WA Contract Ranger Services Pty Ltd	Ranger services October 22	1,782.00
EFT13787	20/10/2022	West Coast Stabilisers	Provision of Grading Services - September 2022	52,354.50
EFT13788	20/10/2022	Environmental Health Australia (NSW) Incorporated	I'm Alert Food Safety subscription for 22/23	330.00
EFT13789	20/10/2022	E Fire & Safety	Fire indicator panel testing - Sep 22	495.00
EFT13790	20/10/2022	Sultan Resources Ltd	Rates refund for A6318	11.14



EFT13791	20/10/2022	Domain Digital	IT charges October 22 & MS NCE M365 Business Premium 1 year license	14,441.57
EFT13792	20/10/2022	Aquatic Services WA	Bisulphate Dosing Tank system	14,278.00
EFT13793	20/10/2022	BUNNINGS TRADE	PVC storm elbows x 24 - Xmas decorations	1,311.63
EFT13794	20/10/2022	Shire Of Mingenew	Velpic online training platform usage Jul - Sep 22	419.10
EFT13795	20/10/2022	Dalwallinu Traders	Assorted Goods - September 22	1,140.05
EFT13796	20/10/2022	Dalwallinu Hotel Pty Ltd	Accommodation for Bruce Maslin	146.00
EFT13797	20/10/2022	Zage Pty Ltd	Welding repairs to mulcher head	1,540.00
EFT13798	20/10/2022	Accwest Pty Ltd	Assistance with Annual Financial Statements onsite	4,400.00
EFT13799	20/10/2022	Corsign WA	4x No Through Road signs	154.00
EFT13800	20/10/2022	Johan Calitz	Refund of equipment bond paid 12/10/22	50.00
EFT13801	20/10/2022	The Estate Of J E W Harle	Rates refund for A122	79.68
EFT13802	20/10/2022	CALTHA PTY LTD	Sand for ovals and playgrounds	7,356.80
EFT13803	20/10/2022	BOEKEMAN MACHINERY	20,000km Service for DL 103	418.79
EFT13804	20/10/2022	DALWALLINU FOOTBALL & HOCKEY CLUB	Refund of bonds for 2022 season	1,910.00
EFT13805	20/10/2022	LANDGATE	Valuations received Aug - Sep 22	238.37
EFT13806	20/10/2022	Down To Earth Training & Assessing	2 Day Chemical Course, 1 Day Confined Space	7,050.00
EFT13807	24/10/2022	LGIS WA	Insurances - second instalment	144,511.63
				<b>1,336,372.92</b>

**DIRECT DEBITS FOR THE MONTH OF OCTOBER 2022**

Chq/EFT	Date	Name	Description	Amount
DD16888.1	04/10/2022	Maia Financial Pty Ltd	Matrix Gym Equipment - lease fee Oct - Dec 2022	5,144.45
DD16901.1	14/10/2022	Aware Super	Superannuation contributions	6,841.95
DD16901.2	14/10/2022	AUSTRALIA SUPER	Superannuation contributions	619.22
DD16901.3	14/10/2022	THE TRUSTEE FOR COLONIAL SUPER RETIREMENT FUND	Superannuation contributions	447.68
DD16901.4	14/10/2022	CBUS	Superannuation contributions	258.53
DD16901.5	14/10/2022	Local Government Superannuation Scheme	Superannuation contributions	887.82
DD16901.6	14/10/2022	PRIME SUPER	Superannuation contributions	228.97
DD16901.7	14/10/2022	Catholic Super	Superannuation contributions	708.26
DD16901.8	14/10/2022	BT Super for Life The Trustee for Retirement Wrap	Superannuation contributions	834.64
DD16901.9	14/10/2022	Rest Industry Super	Superannuation contributions	326.22
DD16901.10	14/10/2022	Australian Super	Superannuation contributions	1,107.36
DD16901.11	14/10/2022	Spirit Super	Superannuation contributions	30.05
DD16901.12	14/10/2022	The Trustee for Commonwealth Essential Super	Superannuation contributions	50.45
DD16902.1	06/10/2022	Bond Administrator	Part bond payment for 10 Roberts Rd	103.50
DD16917.1	21/10/2022	Bond Administrator	Part bond payment for 10 Roberts Rd	103.50
DD16922.1	28/10/2022	Aware Super	Superannuation contributions	7,447.79
DD16922.2	28/10/2022	AUSTRALIA SUPER	Superannuation contributions	612.74
DD16922.3	28/10/2022	THE TRUSTEE FOR COLONIAL SUPER RETIREMENT FUND	Superannuation contributions	447.68
DD16922.4	28/10/2022	CBUS	Superannuation contributions	253.65
DD16922.5	28/10/2022	Local Government Superannuation Scheme	Superannuation contributions	887.82
DD16922.6	28/10/2022	PRIME SUPER	Superannuation contributions	228.97
DD16922.7	28/10/2022	Catholic Super	Superannuation contributions	708.26
DD16922.8	28/10/2022	BT Super for Life The Trustee for Retirement Wrap	Superannuation contributions	834.64
DD16922.9	28/10/2022	Rest Industry Super	Superannuation contributions	320.68
DD16922.10	28/10/2022	Australian Super	Superannuation contributions	914.10
DD16922.11	28/10/2022	Spirit Super	Superannuation contributions	30.05
DD16922.12	28/10/2022	M L C Super Fund	Superannuation contributions	30.63
				<b>30,409.61</b>

**DIRECT DEBITS FOR THE MONTH OF OCTOBER 2022**

<b>CREDIT CARD PAYMENT DETAILS</b>				
<b>Chq/EFT</b>	<b>Date</b>	<b>Name</b>	<b>Description</b>	<b>Amount</b>
DD16911.1	07/09/2022	Aussie Broadband	Monthly charge for internet at Dalwallinu Recreation Centre	79.00
	17/09/2022	Westnet Pty Ltd	Monthly charge for internet at Shire Admin Building	129.95
	29/09/2022	Tennis Warehouse Australia	Purchase new tennis net & tennis balls for Recreation Centre	278.90
	02/10/2022	Merrywell Crown Perth	Refreshments WA Local Government Convention 2- 4 Oct	37.00
	02/10/2022	Crown Metropol	Accommodation/parking/breakfasts for Councillors whilst attending WA Local Government Convention 2- 4 Oct	4,253.86
	02/10/2022	Crown Metropol	Accommodation/parking/breakfasts for Councillors whilst attending WA Local Government Convention 2- 4 Oct	532.49
	02/10/2022	Crown Metropol	Accommodation for Councillors whilst attending WA Local Government Convention 2- 4 Oct	756.38
	02/10/2022	Crown Towers	Accommodation & breakfasts for J Knight whilst attending WA Local Government Convention 2- 4 Oct	1,485.32
	02/10/2022	Merrywell Crown Perth	Refreshments WA local Government Convention 2-4 Oct	34.00
	02/10/2022	Merrywell Crown Perth	Refreshments WA local Government Convention 2-4 Oct	22.00
	04/10/2022	WA Newspapers Pty Ltd	Monthly charge for on-line newspapers	28.00
	04/10/2022	Merrywell Crown Perth	Refreshments WA local Government Convention 2-4 Oct	295.00
	04/10/2022	Merrywell Crown Perth	Refreshments WA local Government Convention 2-4 Oct	76.50
	04/10/2022	Merrywell Crown Perth	Refreshments WA local Government Convention 2-4 Oct	72.00
	04/10/2022	Merrywell Crown Perth	Refreshments WA local Government Convention 2-4 Oct	57.00
	05/10/2022	OLA	OLA fare - CEO residence to Crown	8.09
	05/10/2022	Crown Metropol	Refreshments WA local Government Convention 2-4 Oct	89.76
				<b>8,235.25</b>

## Municipal Account

### Payroll October 2022

14/10/2022	Payroll fortnight ending 14/10/2022	\$ 60,266.00
28/10/2022	Payroll fortnight ending 10/10/2022	\$ 62,556.00
	TOTAL	<u>\$ 122,822.00</u>

### Bank Fees October 2022

07/02/2022	Amex Fee	\$ 21.36
03/10/2022	Bpay Transaction Fee (Muni)	\$ 188.80
03/10/2022	CBA Merchant Fee (Muni)	\$ 2,160.51
03/10/2022	OBB Record Fee (Muni)	\$ 14.15
	TOTAL	<u>\$ 2,384.82</u>

### Direct Debit Payments October 2022

	Superannuation Payments (Pay endings 14/10/2022 & 28/10/2022)	\$ 25,058.16
20/10/2022	Credit Card Payments to Bankwest	\$ 8,235.25
04/10/2022	Gym Equipment Lease Payments by direct debit	\$ 5,144.45
10/10/2022	Loan Payment 157 - Dalwallinu Discovery Centre	\$ 35,749.43
06 & 21/09/2022	Bond Administrator - Housing Bonds	\$ 207.00
	Payments to Department of Transport Licensing	\$ 132,551.80
	TOTAL	<u>\$ 206,946.09</u>

### 9.3.2 Monthly Financial Statements for October 2022\*

<b>Report Date</b>	22 November 2022
<b>Applicant</b>	Shire of Dalwallinu
<b>File Ref</b>	FM/9 Financial Reporting
<b>Previous Meeting Reference</b>	Nil
<b>Prepared by</b>	Ally Bryant, Manager Corporate Services
<b>Supervised by</b>	Jean Knight, Chief Executive Officer
<b>Disclosure of interest</b>	Nil
<b>Voting Requirements</b>	Simple Majority
<b>Attachments</b>	Monthly Statements of Financial Activity, Variance Report, Investments Held and Bank Reconciliations

#### **Purpose of Report**

Council is requested to receive and accept the Financial Reports for the month end 31 October 2022.

#### **Background**

There is a statutory requirement that Financial Reports be recorded in the Minutes of the meeting to which they are presented. The Financial Reports, as circulated, give an overview of the current financial position of the Shire and the status of capital income and expenditure.

#### **Consultation**

Nil

#### **Legislative Implications**

##### State

*Local Government Act 1995*

*Local Government (Financial Management) Regulations 1996 s34(1), s19(1)(2) and s34(2)*

#### **Policy Implications**

Nil

#### **Financial Implications**

Nil

#### **Strategic Implications**

Nil

#### **Site Inspection**

Site inspection undertaken: Not applicable

#### **Triple Bottom Line Assessment**

##### Economic implications

There are no known significant economic implications associated with this proposal.

##### Social implications

There are no known significant social implications associated with this proposal.



### Environmental implications

There are no known significant environmental implications associated with this proposal.

### **Officer Comment**

Financial Reports as at last day of business of the previous month are appended, for the period ending 31 October 2022. It is to be noted that the opening balances in these financial statements are not finalised as further adjustments for 2021-2022 may be required for year end accruals.

Attached for council's consideration are:

1. Statement of Financial Activity
2. Variance Reports
3. Investments Held
4. Bank Reconciliations

As per Council resolution, all items that have a variance of more than \$10,000 have been noted on the variance reports.

### **Officer Recommendation/Resolution**

#### **MOTION 10004**

Moved           Cr MM Harms

Seconded       Cr KJ Christian

That the Council accept the Financial Reports as submitted for the month ending 31 October 2022.

**CARRIED 8/0**



# SHIRE OF DALWALLINU

## MONTHLY FINANCIAL REPORT (Containing the Statement of Financial Activity) For the period ending 31 October 2022

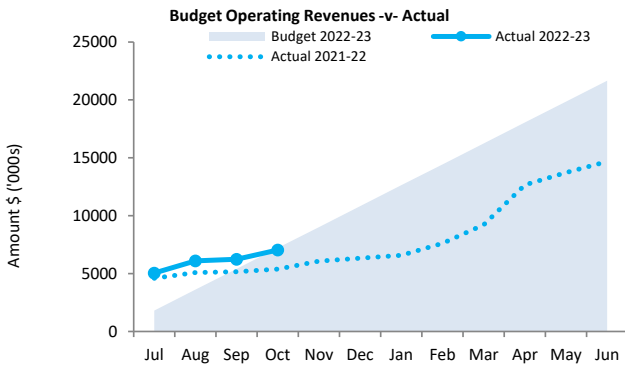
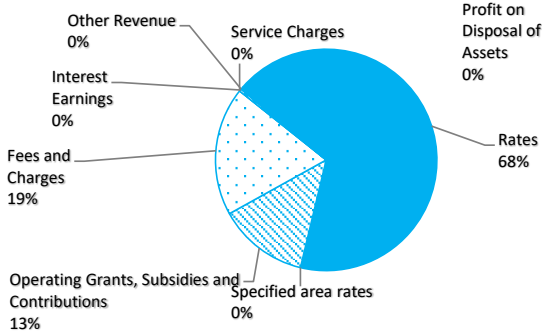
LOCAL GOVERNMENT ACT 1995  
LOCAL GOVERNMENT (FINANCIAL MANAGEMENT) REGULATIONS 1996

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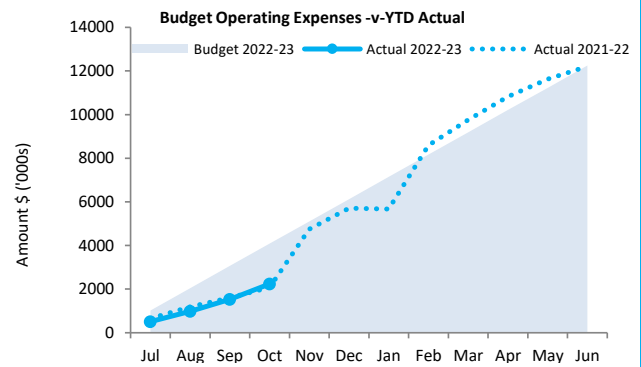
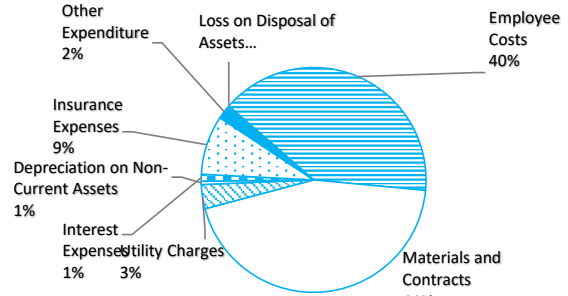
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OPERATING ACTIVITIES

OPERATING REVENUE

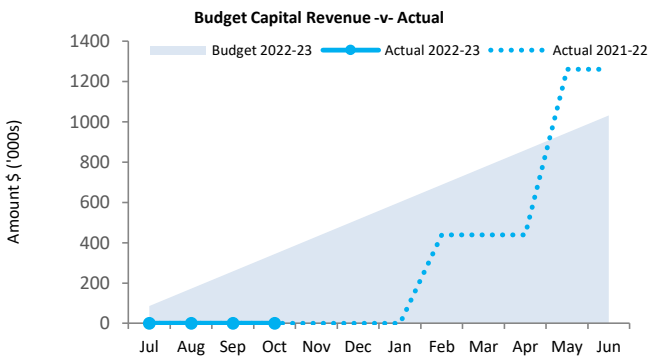


OPERATING EXPENSES

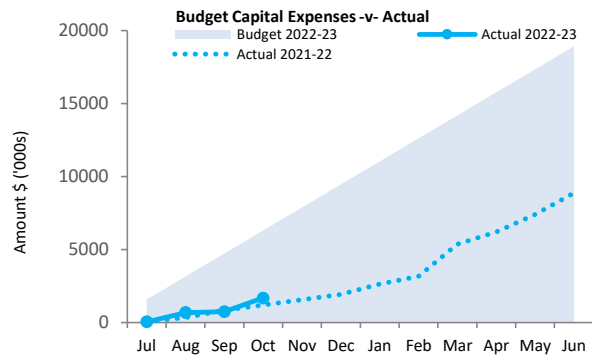


INVESTING ACTIVITIES

CAPITAL REVENUE



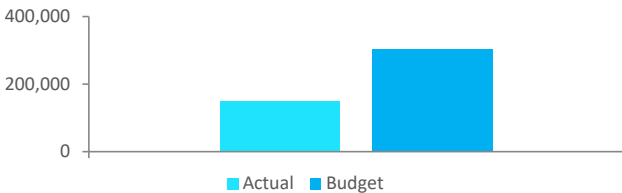
CAPITAL EXPENSES



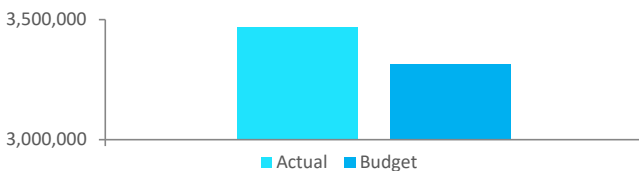
FINANCING ACTIVITIES

BORROWINGS

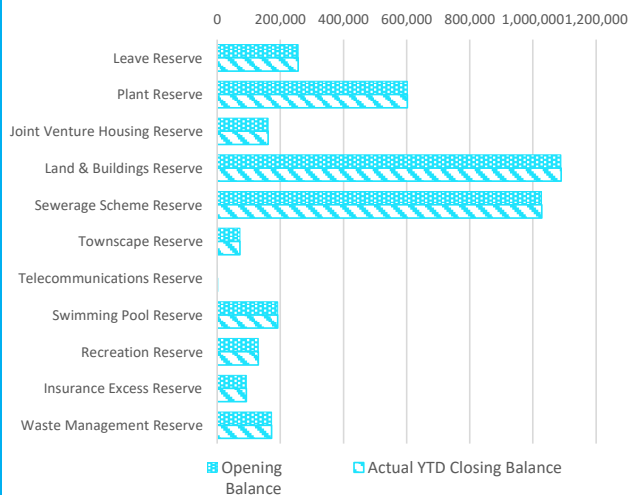
Principal Repayments



Principal Outstanding



CASH BACKED RESERVES





Funding surplus / (deficit) Components

Funding surplus / (deficit)				
	Adopted Budget	YTD Budget (a)	YTD Actual (b)	Var. \$ (b)-(a)
Opening	\$2.91 M	\$2.91 M	\$3.23 M	\$0.32 M
Closing	\$0.00 M	\$7.64 M	\$6.24 M	(\$1.41 M)

Refer to Statement of Financial Activity

Cash and cash equivalents		
	\$	% of total
Unrestricted Cash	\$9.64 M	71.7%
Restricted Cash	\$3.80 M	28.3%

Refer to Note 2 - Cash and Financial Assets

Payables		
	\$	% Outstanding
Trade Payables	\$0.65 M	
Over 30 Days		2.1%
Over 90 Days		0.1%

Refer to Note 5 - Payables

Receivables		
	\$	% Collected
Rates Receivable	\$0.33 M	92.1%
Trade Receivable	\$0.24 M	
Over 30 Days		83.6%
Over 90 Days		77.7%

Refer to Note 3 - Receivables

Key Operating Activities

Amount attributable to operating activities			
Adopted Budget	YTD Budget (a)	YTD Actual (b)	Var. \$ (b)-(a)
(\$0.34 M)	\$2.35 M	\$2.95 M	\$0.61 M

Refer to Statement of Financial Activity

Rates Revenue		
	\$	% Variance
YTD Actual	\$3.50 M	
YTD Budget	\$3.42 M	2.3%

Refer to Note 6 - Rate Revenue

Operating Grants and Contributions		
	\$	% Variance
YTD Actual	\$0.69 M	
YTD Budget	\$0.51 M	33.8%

Refer to Note 13 - Operating Grants and Contributions

Fees and Charges		
	\$	% Variance
YTD Actual	\$0.98 M	
YTD Budget	\$0.85 M	15.2%

Refer to Statement of Financial Activity

Key Investing Activities

Amount attributable to investing activities			
Adopted Budget	YTD Budget (a)	YTD Actual (b)	Var. \$ (b)-(a)
(\$2.66 M)	\$2.40 M	\$0.22 M	(\$2.18 M)

Refer to Statement of Financial Activity

Proceeds on sale		
	\$	%
YTD Actual	\$0.05 M	
Adopted Budget	\$0.51 M	(89.2%)

Refer to Note 7 - Disposal of Assets

Asset Acquisition		
	\$	% Spent
YTD Actual	\$1.68 M	
Adopted Budget	\$18.91 M	(91.1%)

Refer to Note 8 - Capital Acquisition

Capital Grants		
	\$	% Received
YTD Actual	\$1.84 M	
Adopted Budget	\$15.75 M	(88.3%)

Refer to Note 8 - Capital Acquisition

Key Financing Activities

Amount attributable to financing activities			
Adopted Budget	YTD Budget (a)	YTD Actual (b)	Var. \$ (b)-(a)
\$0.09 M	(\$0.01 M)	(\$0.16 M)	(\$0.15 M)

Refer to Statement of Financial Activity

Borrowings	
Principal repayments	\$0.15 M
Interest expense	\$0.02 M
Principal due	\$3.47 M

Refer to Note 9 - Borrowings

Reserves	
Reserves balance	\$3.80 M
Interest earned	\$0.00 M

Refer to Note 11 - Cash Reserves

Lease Liability	
Principal repayments	\$0.01 M
Interest expense	\$0.00 M
Principal due	\$0.01 M

Refer to Note 10 - Lease Liabilities

This information is to be read in conjunction with the accompanying Financial Statements and notes.

## KEY TERMS AND DESCRIPTIONS

FOR THE PERIOD ENDED 31 OCTOBER 2022

## STATUTORY REPORTING PROGRAMS

Shire operations as disclosed in these financial statements encompass the following service orientated activities/programs.

### PROGRAM NAME AND OBJECTIVES

### ACTIVITIES

#### GOVERNANCE

To provide a decision making process for the efficient allocation of scarce resources.

Includes the activities of members of council and the administrative support available to the council for the provision of governance of the district. Other costs relate to the task of assisting elected members and ratepayers on matters which do not concern specific Shire services.

#### GENERAL PURPOSE FUNDING

To collect revenue to allow for the provision of services.

Rates income & expenditure, Grants commission and Pensioners deferred rates interest.

#### LAW, ORDER, PUBLIC SAFETY

To provide services to help ensure a safer and environmentally conscious community.

Supervision of various by-laws, fire prevention, emergency services and animal control.

#### HEALTH

To provide an operational framework for environmental and community health.

Food quality, pest control, immunisation services and other health.

#### EDUCATION AND WELFARE

To provide services to disadvantaged persons, the elderly, children and youth.

School support, assistance to playgroups, retirements villages and other voluntary services.

#### HOUSING

To provide and maintain employee, non-employee and elderly residents housing.

Provision and maintenance of staff and rental housing.

#### COMMUNITY AMENITIES

To provide services required by the community.

Rubbish collection services, operation of tips, noise control, administration of the town planning scheme, maintenance of cemeteries, maintenance of public conveniences, storm water drainage maintenance, sewerage scheme operation, litter control and roadside furniture.

#### RECREATION AND CULTURE

To establish and effectively manage infrastructure and resource which will help the social well being of the community.

Provision of facilities and support for organisations concerned with leisure time activities and sport, support for performing and creative arts and preservation of the natural estate. This includes maintenance of halls, aquatic centres, recreation and community centres, parks, gardens, sports grounds and operation of libraries.

#### TRANSPORT

To provide safe, effective and efficient transport services to the community.

Construction, maintenance and cleaning of streets, roads, bridges, drainage works, footpaths, parking facilities and traffic signs, cleaning and lighting of streets, depot maintenance and airstrip maintenance.

#### ECONOMIC SERVICES

To help promote the Shire and its economic wellbeing.

The regulation and provision of tourism, area promotion, building control, noxious weed control, vermin control, standpipes and land subdivisions.

#### OTHER PROPERTY AND SERVICES

To monitor and control the shire's overheads and operating accounts.

Private works operation, public works overheads, materials, salaries & wages, plant repairs and operation costs. With the exception of private works, the above activities listed are mainly summaries of costs that are allocated to all the works and services undertaken by Council.

**STATEMENT OF FINANCIAL ACTIVITY  
FOR THE PERIOD ENDED 31 OCTOBER 2022**

**STATUTORY REPORTING PROGRAMS**

	Ref Note	Adopted Budget	YTD Budget (a)	YTD Actual (b)	Var. \$ (b)-(a)	Var. % (b)-(a)/(a)	Var.
		\$	\$	\$	\$	%	
<b>Opening funding surplus / (deficit)</b>	1(c)	2,908,832	2,908,832	<b>3,225,589</b>	316,757	10.89%	▲
<b>Revenue from operating activities</b>							
Governance		300	164	<b>177</b>	13	7.93%	
General purpose funding - general rates	6	3,499,896	3,420,229	<b>3,499,890</b>	79,661	2.33%	
General purpose funding - other		353,250	121,935	<b>280,436</b>	158,501	129.99%	▲
Law, order and public safety		38,540	10,716	<b>26,771</b>	16,055	149.82%	▲
Health		11,950	4,781	<b>3,968</b>	(813)	(17.00%)	
Education and welfare		3,302	1,081	<b>2,412</b>	1,331	123.13%	
Housing		342,433	120,121	<b>139,674</b>	19,553	16.28%	▲
Community amenities		591,793	550,120	<b>589,287</b>	39,167	7.12%	
Recreation and culture		158,049	46,847	<b>61,396</b>	14,549	31.06%	▲
Transport		358,513	332,508	<b>350,554</b>	18,046	5.43%	
Economic services		311,389	59,977	<b>35,995</b>	(23,982)	(39.99%)	▼
Other property and services		393,773	143,060	<b>205,938</b>	62,878	43.95%	▲
		<b>6,063,188</b>	<b>4,811,539</b>	<b>5,196,498</b>	384,959		
<b>Expenditure from operating activities</b>							
Governance		(794,431)	(266,307)	<b>(258,070)</b>	8,237	3.09%	
General purpose funding		(169,436)	(59,461)	<b>(55,367)</b>	4,094	6.89%	
Law, order and public safety		(212,611)	(85,815)	<b>(57,887)</b>	27,928	32.54%	▼
Health		(340,765)	(149,005)	<b>(136,685)</b>	12,320	8.27%	
Education and welfare		(134,407)	(43,558)	<b>(29,430)</b>	14,128	32.43%	▼
Housing		(432,016)	(161,787)	<b>(116,610)</b>	45,177	27.92%	▼
Community amenities		(870,023)	(286,085)	<b>(224,688)</b>	61,397	21.46%	▼
Recreation and culture		(2,261,438)	(832,441)	<b>(475,467)</b>	356,974	42.88%	▼
Transport		(6,432,219)	(2,236,174)	<b>(739,194)</b>	1,496,980	66.94%	▼
Economic services		(502,145)	(184,837)	<b>(103,112)</b>	81,725	44.21%	▼
Other property and services		(101,603)	(119,692)	<b>(39,432)</b>	80,260	67.06%	▼
		<b>(12,251,094)</b>	<b>(4,425,162)</b>	<b>(2,235,942)</b>	2,189,220		
Non-cash amounts excluded from operating activities	1(a)	5,850,837	1,959,370	<b>(7,049)</b>	(1,966,419)	(100.36%)	▼
<b>Amount attributable to operating activities</b>		<b>(337,069)</b>	<b>2,345,747</b>	<b>2,953,507</b>	607,760		
<b>Investing Activities</b>							
Proceeds from non-operating grants, subsidies and contributions	14	15,750,848	8,231,387	<b>1,842,905</b>	(6,388,482)	(77.61%)	▼
Proceeds from disposal of assets	7	505,394	0	<b>54,408</b>	54,408	0.00%	▲
Payments for property, plant and equipment and infrastructure	8	(18,913,692)	(5,832,553)	<b>(1,675,543)</b>	4,157,010	71.27%	▼
<b>Amount attributable to investing activities</b>		<b>(2,657,450)</b>	<b>2,398,834</b>	<b>221,770</b>	(2,177,064)		
<b>Financing Activities</b>							
Transfer from reserves	11	1,031,813	0	<b>0</b>	0	0.00%	
Payments for principal portion of lease liabilities	10	(22,609)	(10,753)	<b>(10,752)</b>	1	0.01%	
Repayment of debentures	9	(304,000)	0	<b>(151,216)</b>	(151,216)	0.00%	▼
Transfer to reserves	11	(619,517)	0	<b>(2,578)</b>	(2,578)	0.00%	
<b>Amount attributable to financing activities</b>		<b>85,687</b>	<b>(10,753)</b>	<b>(164,546)</b>	(153,793)		
<b>Closing funding surplus / (deficit)</b>	1(c)	<b>0</b>	<b>7,642,660</b>	<b>6,236,318</b>			

**KEY INFORMATION**

▲ ▼ Indicates a variance between Year to Date (YTD) Actual and YTD Actual data as per the adopted materiality threshold. Refer threshold. Refer to Note 15 for an explanation of the reasons for the variance.

The material variance adopted by Council for the 2022-23 year is \$10,000 or 10.00% whichever is the greater.

This statement is to be read in conjunction with the accompanying Financial Statements and notes.

## KEY TERMS AND DESCRIPTIONS

### FOR THE PERIOD ENDED 31 OCTOBER 2022

## NATURE OR TYPE DESCRIPTIONS

### REVENUE

#### RATES

All rates levied under the *Local Government Act 1995*. Includes general, differential, specified area rates, minimum rates, interim rates, back rates, ex-gratia rates, less discounts and concessions offered. Exclude administration fees, interest on instalments, interest on arrears, service charges and sewerage rates.

#### OPERATING GRANTS, SUBSIDIES AND CONTRIBUTIONS

Refers to all amounts received as grants, subsidies and contributions that are not non-operating grants.

#### NON-OPERATING GRANTS, SUBSIDIES AND CONTRIBUTIONS

Amounts received specifically for the acquisition, construction of new or the upgrading of identifiable non financial assets paid to a local government, irrespective of whether these amounts are received as capital grants, subsidies, contributions or donations.

#### REVENUE FROM CONTRACTS WITH CUSTOMERS

Revenue from contracts with customers is recognised when the local government satisfies its performance obligations under the contract.

#### FEES AND CHARGES

Revenues (other than service charges) from the use of facilities and charges made for local government services, sewerage rates, rentals, hire charges, fee for service, photocopying charges, licences, sale of goods or information, fines, penalties and administration fees. Local governments may wish to disclose more detail such as rubbish collection fees, rental of property, fines and penalties, other fees and charges.

#### SERVICE CHARGES

Service charges imposed under *Division 6 of Part 6 of the Local Government Act 1995*. *Regulation 54 of the Local Government (Financial Management) Regulations 1996* identifies these as television and radio broadcasting, underground electricity and neighbourhood surveillance services. Exclude rubbish removal charges. Interest and other items of a similar nature received from bank and investment accounts, interest on rate instalments, interest on rate arrears and interest on debtors.

#### INTEREST EARNINGS

Interest and other items of a similar nature received from bank and investment accounts, interest on rate instalments, interest on rate arrears and interest on debtors.

#### OTHER REVENUE / INCOME

Other revenue, which can not be classified under the above headings, includes dividends, discounts, rebates etc.

#### PROFIT ON ASSET DISPOSAL

Excess of assets received over the net book value for assets on their disposal.

### EXPENSES

#### EMPLOYEE COSTS

All costs associate with the employment of person such as salaries, wages, allowances, benefits such as vehicle and housing, superannuation, employment expenses, removal expenses, relocation expenses, worker's compensation insurance, training costs, conferences, safety expenses, medical examinations, fringe benefit tax, etc.

#### MATERIALS AND CONTRACTS

All expenditures on materials, supplies and contracts not classified under other headings. These include supply of goods and materials, legal expenses, consultancy, maintenance agreements, communication expenses, advertising expenses, membership, periodicals, publications, hire expenses, rental, leases, postage and freight etc. Local governments may wish to disclose more detail such as contract services, consultancy, information technology, rental or lease expenditures.

#### UTILITIES (GAS, ELECTRICITY, WATER, ETC.)

Expenditures made to the respective agencies for the provision of power, gas or water. Exclude expenditures incurred for the reinstatement of roadwork on behalf of these agencies.

#### INSURANCE

All insurance other than worker's compensation and health benefit insurance included as a cost of employment.

#### LOSS ON ASSET DISPOSAL

Shortfall between the value of assets received over the net book value for assets on their disposal.

#### DEPRECIATION ON NON-CURRENT ASSETS

Depreciation expense raised on all classes of assets.

#### INTEREST EXPENSES

Interest and other costs of finance paid, including costs of finance for loan debentures, overdraft accommodation and refinancing expenses.

#### OTHER EXPENDITURE

Statutory fees, taxes, allowance for impairment of assets, member's fees or State taxes. Donations and subsidies made to community groups.

**STATEMENT OF FINANCIAL ACTIVITY  
FOR THE PERIOD ENDED 31 OCTOBER 2022**

**BY NATURE OR TYPE**

	Ref Note	Adopted Budget	YTD Budget (a)	YTD Actual (b)	Var. \$ (b)-(a)	Var. % (b)-(a)/(a)	Var.
		\$	\$	\$	\$	%	
<b>Opening funding surplus / (deficit)</b>	1(c)	2,908,832	2,908,832	<b>3,225,589</b>	316,757	10.89%	▲
<b>Revenue from operating activities</b>							
Rates	6	3,499,896	3,420,229	<b>3,499,890</b>	79,661	2.33%	
Operating grants, subsidies and contributions	13	884,983	519,486	<b>685,726</b>	166,240	32.00%	▲
Fees and charges		1,493,746	846,600	<b>975,190</b>	128,590	15.19%	▲
Interest earnings		30,737	7,192	<b>17,886</b>	10,694	148.69%	▲
Other revenue		100	32	<b>5</b>	(27)	(84.38%)	
Profit on disposal of assets	7	153,726	18,000	<b>17,801</b>	(199)	(1.11%)	
		<b>6,063,188</b>	<b>4,811,539</b>	<b>5,196,498</b>	384,959		
<b>Expenditure from operating activities</b>							
Employee costs		(2,611,747)	(775,379)	<b>(896,716)</b>	(121,337)	(15.65%)	▲
Materials and contracts		(2,700,695)	(1,208,440)	<b>(992,127)</b>	216,313	17.90%	▼
Utility charges		(445,845)	(144,768)	<b>(77,635)</b>	67,133	46.37%	▼
Depreciation on non-current assets		(5,990,306)	(1,977,370)	<b>(10,752)</b>	1,966,618	99.46%	▼
Interest expenses		(120,420)	(55,991)	<b>(21,988)</b>	34,003	60.73%	▼
Insurance expenses		(214,234)	(212,892)	<b>(190,611)</b>	22,281	10.47%	▼
Other expenditure		(153,590)	(50,322)	<b>(46,116)</b>	4,206	8.36%	
Loss on disposal of assets	7	(14,257)	0	<b>0</b>	0	0.00%	
		<b>(12,251,094)</b>	<b>(4,425,162)</b>	<b>(2,235,945)</b>	2,189,217		
Non-cash amounts excluded from operating activities	1(a)	5,850,837	1,959,370	<b>(7,049)</b>	(1,966,419)	(100.36%)	▼
<b>Amount attributable to operating activities</b>		<b>(337,069)</b>	<b>2,345,747</b>	<b>2,953,504</b>	607,757		
<b>Investing activities</b>							
Proceeds from non-operating grants, subsidies and contributions	14	15,750,848	8,231,387	<b>1,842,905</b>	(6,388,482)	(77.61%)	▼
Proceeds from disposal of assets	7	505,394	0	<b>54,408</b>	54,408	0.00%	▲
Payments for property, plant and equipment	8	(18,913,692)	(5,832,553)	<b>(1,675,543)</b>	4,157,010	71.27%	▼
<b>Amount attributable to investing activities</b>		<b>(2,657,450)</b>	<b>2,398,834</b>	<b>221,770</b>	(2,177,064)		
<b>Financing Activities</b>							
Transfer from reserves	11	1,031,813	0	<b>0</b>	0	0.00%	
Payments for principal portion of lease liabilities		(22,609)	(10,753)	<b>(10,752)</b>	1	0.01%	
Repayment of debentures	9	(304,000)	0	<b>(151,216)</b>	(151,216)	0.00%	▼
Transfer to reserves	11	(619,517)	0	<b>(2,578)</b>	(2,578)	0.00%	
<b>Amount attributable to financing activities</b>		<b>85,687</b>	<b>(10,753)</b>	<b>(164,546)</b>	(153,793)		
<b>Closing funding surplus / (deficit)</b>	1(c)	<b>0</b>	<b>7,642,660</b>	<b>6,236,318</b>	(1,406,342)		

**KEY INFORMATION**

▲▼ Indicates a variance between Year to Date (YTD) Actual and YTD Actual data as per the adopted materiality threshold.

Refer to Note 15 for an explanation of the reasons for the variance.

This statement is to be read in conjunction with the accompanying Financial Statements and Notes.

## **BASIS OF PREPARATION**

### **REPORT PURPOSE**

This report is prepared to meet the requirements of *Local Government (Financial Management) Regulations 1996*, Regulation 34. Note: The statements and accompanying notes are prepared based on all transactions recorded at the time of preparation and may vary due to transactions being processed for the reporting period after the date of preparation.

### **BASIS OF ACCOUNTING**

This statement comprises a special purpose financial report which has been prepared in accordance with Australian Accounting Standards (as they apply to local governments and not-for-profit entities) and Interpretations of the Australian Accounting Standards Board, and the *Local Government Act 1995* and accompanying regulations.

The *Local Government (Financial Management) Regulations 1996* take precedence over Australian Accounting Standards.

Regulation 16 prohibits a local government from recognising as assets Crown land that is a public thoroughfare, such as land under roads, and land not owned by but under the control or management of the local government, unless it is a golf course, showground, racecourse or recreational facility of State or regional significance. Consequently, some assets, including land under roads acquired on or after 1 July 2008, have not been recognised in this financial report. This is not in accordance with the requirements of *AASB 1051 Land Under Roads paragraph 15* and *AASB 116 Property, Plant and Equipment paragraph 7*.

Accounting policies which have been adopted in the preparation of this financial report have been consistently applied unless stated otherwise. Except for cash flow and rate setting information, the report has been prepared on the accrual basis and is based on historical costs, modified, where applicable, by the measurement at fair value of selected non-current assets, financial assets and liabilities.

### **PREPARATION TIMING AND REVIEW**

Date prepared: All known transactions up to 08 November 2022

## **SIGNIFICANT ACCOUNTING POLICES**

### **CRITICAL ACCOUNTING ESTIMATES**

The preparation of a financial report in conformity with Australian Accounting Standards requires management to make judgements, estimates and assumptions that effect the application of policies and reported amounts of assets and liabilities, income and expenses. The estimates and associated assumptions are based on historical experience and various other factors that are believed to be reasonable under the circumstances; the results of which form the basis of making the judgements about carrying values of assets and liabilities that are not readily apparent from other sources. Actual results may differ from these estimates.

### **THE LOCAL GOVERNMENT REPORTING ENTITY**

All funds through which the Shire controls resources to carry on its functions have been included in the financial statements forming part of this financial report.

In the process of reporting on the local government as a single unit, all transactions and balances between those funds (for example, loans and transfers between funds) have been eliminated.

All monies held in the Trust Fund are excluded from the financial statements. A separate statement of those monies

### **GOODS AND SERVICES TAX**

Revenues, expenses and assets are recognised net of the amount of GST, except where the amount of GST incurred is not recoverable from the Australian Taxation Office (ATO). Receivables and payables are stated inclusive of GST receivable or payable. The net amount of GST recoverable from, or payable to, the ATO is included with receivables or payables in the statement of financial position. Cash flows are presented on a gross basis. The GST components of cash flows arising from investing or financing activities which are recoverable from, or payable to, the ATO are presented as operating cash flows.

### **ROUNDING OFF FIGURES**

All figures shown in this statement are rounded to the nearest dollar.

(a) Non-cash items excluded from operating activities

The following non-cash revenue and expenditure has been excluded from operating activities within the Statement of Financial Activity in accordance with Financial Management Regulation 32.

	Notes	Adopted Budget	YTD Budget (a)	YTD Actual (b)
<b>Non-cash items excluded from operating activities</b>				
		\$	\$	\$
<b>Adjustments to operating activities</b>				
Less: Profit on asset disposals	7	(153,726)	(18,000)	(17,801)
Add: Loss on asset disposals	7	14,257	0	0
Add: Depreciation on assets		5,990,306	1,999,254	10,752
<b>Total non-cash items excluded from operating activities</b>		<b>5,850,837</b>	<b>1,981,254</b>	<b>(7,049)</b>

(b) Adjustments to net current assets in the Statement of Financial Activity

The following current assets and liabilities have been excluded from the net current assets used in the Statement of Financial Activity in accordance with *Financial Management Regulation* 32 to agree to the surplus/(deficit) after imposition of general rates.

		Last Year Closing	This Time Last Year	Year to Date
		30 June 2022	31 October 2021	31 October 2022
<b>Adjustments to net current assets</b>				
Less: Reserves - restricted cash	11	(3,794,138)	(4,520,300)	(3,796,715)
Less: Provisions		(363,157)	(367,526)	(367,634)
Add: Borrowings	9	304,001	149,686	152,784
Add: Provisions - employee	12	363,157	367,548	411,575
Add: Lease liabilities	10	23,028	12,636	12,039
Add: Cash backed leave portion		256,140	209,381	256,140
<b>Total adjustments to net current assets</b>		<b>(3,210,969)</b>	<b>(4,148,575)</b>	<b>(3,331,811)</b>

(c) Net current assets used in the Statement of Financial Activity

<b>Current assets</b>				
Cash and cash equivalents	2	8,385,974	9,168,919	13,438,112
Rates receivables	3	51,808	385,456	330,927
Receivables	3	231,072	126,805	244,542
Other current assets	4	10,157	15,168	9,052
<b>Less: Current liabilities</b>				
Payables	5	(764,040)	(505,887)	(693,043)
Borrowings	9	(304,001)	(149,686)	(152,784)
Contract liabilities	12	(788,226)	(178,564)	(3,185,063)
Lease liabilities	10	(23,028)	(12,636)	(12,039)
Provisions	12	(363,157)	(367,548)	(411,575)
<b>Less: Total adjustments to net current assets</b>	1(b)	<b>(3,210,969)</b>	<b>(4,148,575)</b>	<b>(3,331,811)</b>
<b>Closing funding surplus / (deficit)</b>		<b>3,225,589</b>	<b>4,333,452</b>	<b>6,236,318</b>

CURRENT AND NON-CURRENT CLASSIFICATION

In the determination of whether an asset or liability is current or non-current, consideration is given to the time when each asset or liability is expected to be settled. Unless otherwise stated assets or liabilities are classified as current if expected to be settled within the next 12 months, being the Council's operational cycle.

Description	Classification	Unrestricted \$	Restricted \$	Total Cash \$	Trust \$	Institution	Interest Rate	Maturity Date
<b>Cash on hand</b>								
TelenetSaver Account	Cash and cash equivalents	4,544,913		4,544,913		Bankwest	0.05%	At Call
Municipal Account	Cash and cash equivalents	80,495		80,495		Bankwest	0.00%	At Call
Term Deposit - Municipal Excess	Cash and cash equivalents	5,015,739		5,015,739		Bankwest	0.22%	7/11/2022
Term Deposit - Reserves	Cash and cash equivalents	0	3,796,715	3,796,715		Bankwest	1.40%	1/12/2022
Floats Held	Cash and cash equivalents	250		250		Shire float	0.00%	N/A
<b>Total</b>		<b>9,641,397</b>	<b>3,796,715</b>	<b>13,438,112</b>	<b>0</b>			
<b>Comprising</b>								
Cash and cash equivalents		9,641,397	3,796,715	13,438,112	0			
		<b>9,641,397</b>	<b>3,796,715</b>	<b>13,438,112</b>	<b>0</b>			

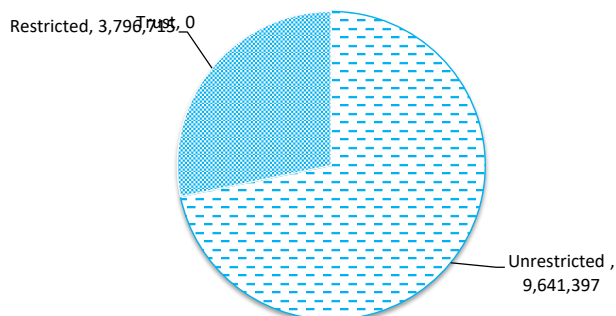
**KEY INFORMATION**

Cash and cash equivalents include cash on hand, cash at bank, deposits available on demand with banks and other short term highly liquid investments highly liquid investments with original maturities of three months or less that are readily convertible to known amounts of cash and which are subject to an insignificant risk of changes in value and bank overdrafts. Bank overdrafts are reported as short term borrowings in current liabilities in the statement of net current assets.

The local government classifies financial assets at amortised cost if both of the following criteria are met:

- the asset is held within a business model whose objective is to collect the contractual cashflows, and
- the contractual terms give rise to cash flows that are solely payments of principal and interest.

Financial assets at amortised cost held with registered financial institutions are listed in this note other financial assets at amortised cost are provided in Note 4 - Other assets.





**NOTES TO THE STATEMENT OF FINANCIAL ACTIVITY  
FOR THE PERIOD ENDED 31 OCTOBER 2022**

**OPERATING ACTIVITIES  
NOTE 3  
RECEIVABLES**

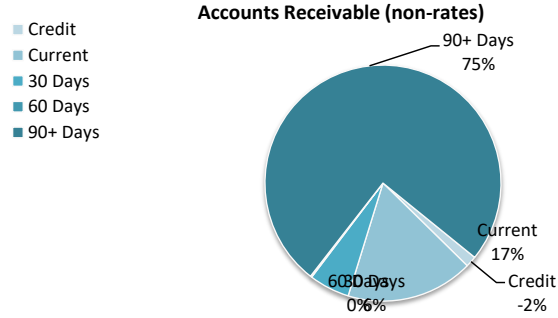
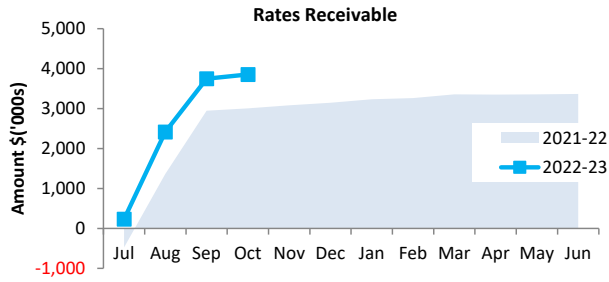
Rates receivable	30 Jun 2022	31 Oct 2022
	\$	\$
Opening arrears previous years	59,824	51,808
Levied this year	3,353,365	4,133,471
Less - collections to date	(3,361,381)	(3,854,352)
Equals current outstanding	<b>51,808</b>	<b>330,927</b>
<b>Net rates collectable</b>	<b>51,808</b>	<b>330,927</b>
% Collected	98.5%	92.1%

Receivables - general	Credit	Current	30 Days	60 Days	90+ Days	Total
	\$	\$	\$	\$	\$	\$
Receivables - general	(2,468)	28,337	9,037	329	122,523	157,759
Percentage	(1.6%)	18%	5.7%	0.2%	77.7%	
<b>Balance per trial balance</b>						
Sundry receivable	(2,468)	28,337	9,037	329	122,523	157,759
GST receivable						86,783
<b>Total receivables general outstanding</b>						<b>244,542</b>

Amounts shown above include GST (where applicable)

**KEY INFORMATION**

Trade and other receivables include amounts due from ratepayers for unpaid rates and service charges and other amounts due from third parties for goods sold and services performed in the ordinary course of business. Receivables expected to be collected within 12 months of the end of the reporting period are classified as current assets. All other receivables are classified as non-current assets. Collectability of trade and other receivables is reviewed on an ongoing basis. Debts that are known to be uncollectible are written off when identified. An allowance for impairment of receivables is raised when there is objective evidence that they will not be collectible.



	Opening Balance 1 July 2022	Asset Increase	Asset Reduction	Closing Balance 31 October 2022
	\$	\$	\$	\$
<b>Other current assets</b>				
<b>Other financial assets at amortised cost</b>				
Financial assets at amortised cost - self supporting loans	0			0
Financial assets at amortised cost - [describe]	0			0
<b>Inventory</b>				
Inventories Fuel & Materials	10,157	0	(1,105)	9,052
Inventories [describe]	0			0
Inventories [describe]	0			0
Inventories [describe]	0			0
Inventories [describe]	0			0
<b>Land held for resale</b>				
Cost of acquisition	0			0
Development costs	0			0
<b>Prepayments</b>				
Prepayments	0			0
<b>Contract assets</b>				
Contract assets	0	0		0
<b>Total other current assets</b>	<b>10,157</b>	<b>0</b>	<b>(1,105)</b>	<b>9,052</b>
<b>Amounts shown above include GST (where applicable)</b>				

#### KEY INFORMATION

##### Other financial assets at amortised cost

The Shire classifies financial assets at amortised cost if both of the following criteria are met:

- the asset is held within a business model whose objective is to collect the contractual cashflows, and
- the contractual terms give rise to cash flows that are solely payments of principal and interest.

##### Inventory

Inventories are measured at the lower of cost and net realisable value.

Net realisable value is the estimated selling price in the ordinary course of business less the estimated costs of completion and the estimated costs necessary to make the sale.

##### Land held for resale

Land held for development and resale is valued at the lower of cost and net realisable value. Cost includes the cost of acquisition, development, borrowing costs and holding costs until completion of development.

Borrowing costs and holding charges incurred after development is completed are expensed.

Gains and losses are recognised in profit or loss at the time of signing an unconditional contract of sale if significant risks and rewards, and effective control over the land, are passed onto the buyer at this point.

Land held for resale is classified as current except where it is held as non-current based on the Council's intentions to release for sale.

##### Contract assets

A contract asset is the right to consideration in exchange for goods or services the entity has transferred to a customer when that right is conditioned on something other than the passage of time.

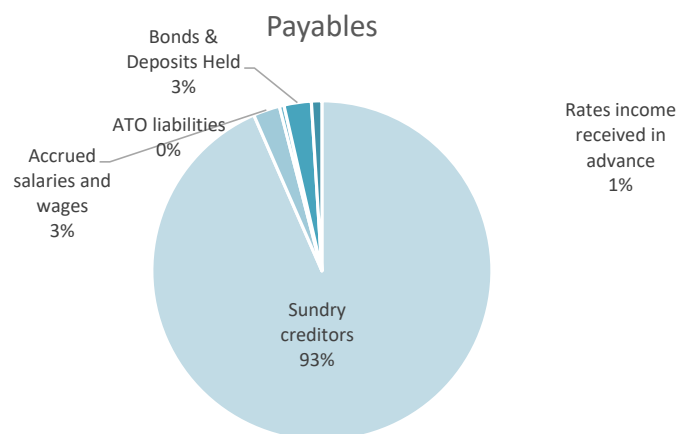
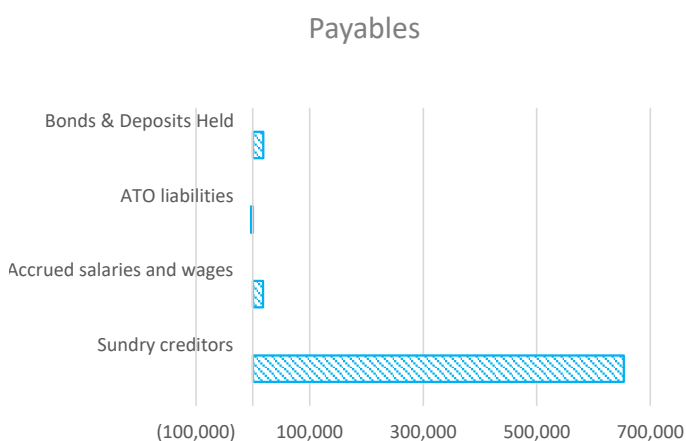
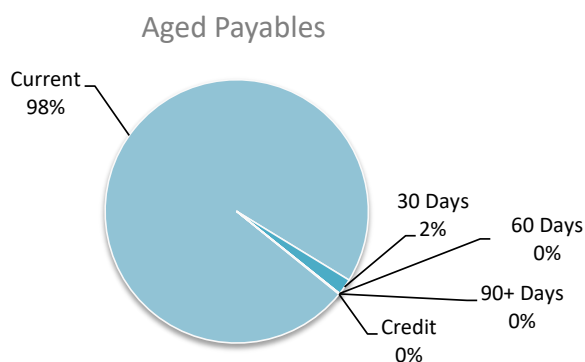
Payables - general	Credit	Current	30 Days	60 Days	90+ Days	Total
	\$	\$	\$	\$	\$	\$
Payables - general	0	557,984	11,318	77	550	569,930
Percentage	0%	97.9%	2%	0%	0.1%	
<b>Balance per trial balance</b>						
Sundry creditors	0	648,353	11,318	77	550	653,349
Accrued salaries and wages						17,686
ATO liabilities						(3,074)
Bonds & Deposits Held						18,162
Rates income received in advance						6,920
<b>Total payables general outstanding</b>						<b>693,043</b>

Amounts shown above include GST (where applicable)

**KEY INFORMATION**

Trade and other payables represent liabilities for goods and services provided to the Shire that are unpaid and arise when the Shire becomes obliged to make future payments in respect of the purchase of these goods and services. The amounts are unsecured, are recognised as a current liability and are normally paid within 30 days of recognition.

- Credit
- Current
- 30 Days
- 60 Days
- 90+ Days



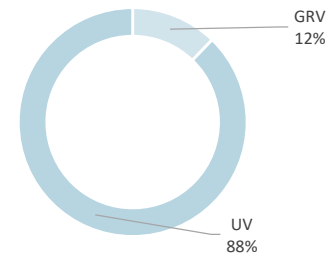
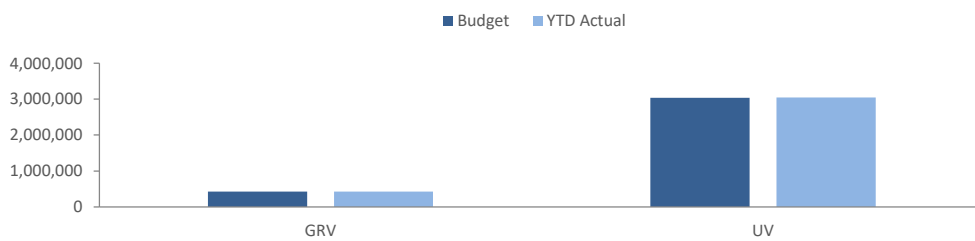
NOTES TO THE STATEMENT OF FINANCIAL ACTIVITY  
FOR THE PERIOD ENDED 31 OCTOBER 2022

OPERATING ACTIVITIES  
NOTE 6  
RATE REVENUE

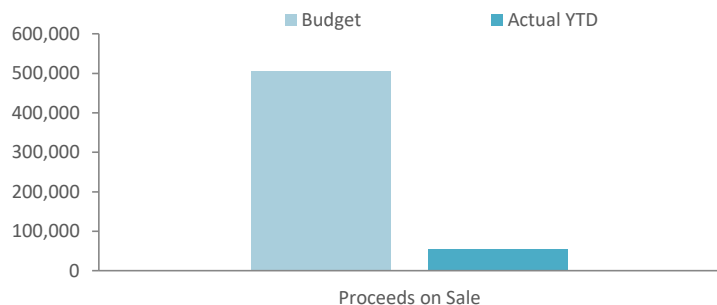
General rate revenue	Budget							YTD Actual			
	Rate in \$ (cents)	Number of Properties	Rateable Value	Rate Revenue	Interim Rate	Back Rate	Total Revenue	Rate Revenue	Interim Rates	Back Rates	Total Revenue
<b>RATE TYPE</b>				\$	\$	\$	\$	\$	\$	\$	\$
<b>Gross rental value</b>											
GRV	0.09548	316	4,448,810	424,772	2,000	0	426,772	424,772	0	0	424,772
<b>Unimproved value</b>											
UV	0.01474	362	205,803,500	3,033,544	3,000	0	3,036,544	3,033,544	13,855	2,297	3,049,695
<b>Sub-Total</b>		<b>678</b>	<b>210,252,310</b>	<b>3,458,316</b>	<b>5,000</b>	<b>0</b>	<b>3,463,316</b>	<b>3,458,315</b>	<b>13,855</b>	<b>2,297</b>	<b>3,474,467</b>
<b>Minimum payment</b>	<b>Minimum \$</b>										
<b>Gross rental value</b>											
GRV - Dalwallinu	600	109	489,348	65,400	0	0	65,400	65,400	0	0	65,400
GRV - Kalannie	600	29	134,210	17,400	0	0	17,400	17,400	0	0	17,400
GRV - Other Towns	600	80	260,964	48,000	0	0	48,000	48,000	0	0	48,000
<b>Unimproved value</b>											
UV - Rural	700	38	434,166	26,600			26,600	26,600	0	0	26,600
UV - Mining	700	49	736,478	34,300			34,300	34,300	0	0	34,300
<b>Sub-total</b>		<b>305</b>	<b>2,055,166</b>	<b>191,700</b>	<b>0</b>	<b>0</b>	<b>191,700</b>	<b>191,700</b>	<b>0</b>	<b>0</b>	<b>191,700</b>
Discount							(155,120)	(166,277)			(166,277)
Ex-gratia rates											
<b>Total general rates</b>							<b>3,499,896</b>				<b>3,499,890</b>

KEY INFORMATION

Prepaid rates are, until the taxable event for the rates has occurred, refundable at the request of the ratepayer. Rates received in advance give rise to a financial liability. On 1 July 2020 the prepaid rates were recognised as a financial asset and a related amount was recognised as a financial liability and no income was recognised. When the taxable event occurs the financial liability is extinguished and income recognised for the prepaid rates that have not been refunded.



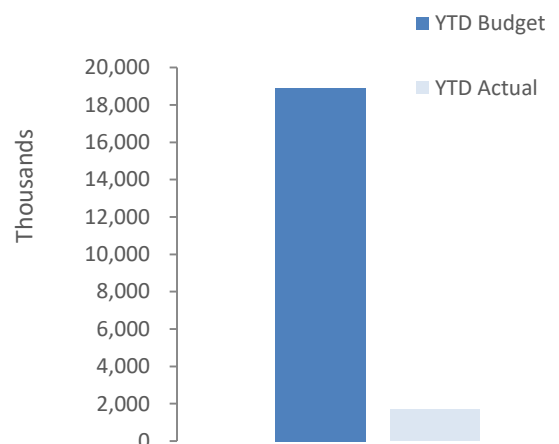
Asset Ref.	Asset description	Budget				YTD Actual			
		Net Book Value	Proceeds	Profit	(Loss)	Net Book Value	Proceeds	Profit	(Loss)
		\$	\$	\$	\$	\$	\$	\$	\$
<b>Land &amp; Buildings</b>									
	Sale of Lot 572 Sawyers Ave	68,000	69,394	1,394	0	0	0	0	0
	Sale of Lot 12 McNeill St	75,000	120,000	45,000	0	0	0	0	0
	Sale of Lot 1002 Roberts Rd	65,000	150,000	85,000	0	0	0	0	0
<b>Other Infrastructure</b>									
<b>Plant and equipment</b>									
<b>Transport</b>									
	Crew Cab Truck DL 420	23,573	20,000	0	(3,573)	0	0	0	0
	3.5T Tipper Truck DL 121	20,184	15,000	0	(5,184)	0	0	0	0
	Utility DL 102	9,182	9,500	318	0	8,929	16,364	7,435	0
	Utility L/Hand DL 747	14,000	9,500	0	(4,500)	0	0	0	0
	Utility WS DL 281	22,267	26,000	3,733	0	0	0	0	0
	Utility DL 194	11,000	10,000	0	(1,000)	0	0	0	0
	John Deere Tractor DL 5150	25,719	26,000	281	0	27,679	38,044	10,366	0
<b>Other property and services</b>									
	Ford Everest DL 2	32,000	50,000	18,000	0	0	0	0	0
		<b>365,925</b>	<b>505,394</b>	<b>153,726</b>	<b>(14,257)</b>	<b>36,608</b>	<b>54,408</b>	<b>17,801</b>	<b>0</b>



Capital acquisitions	Adopted		YTD Actual	YTD Actual Variance
	Budget	YTD Budget		
	\$	\$	\$	\$
Land	122,000	8,000	19,023	11,023
Buildings	3,647,443	1,086,876	151,126	(935,750)
Furniture and equipment	76,820	54,570	0	(54,570)
Plant and equipment	370,000	24,000	41,163	17,163
Infrastructure - roads	13,966,024	4,404,551	1,441,330	(2,963,221)
Infrastructure - Other	581,405	254,556	22,902	(231,654)
Infrastructure - Footpaths	150,000	0	0	0
<b>Payments for Capital Acquisitions</b>	<b>18,913,692</b>	<b>5,832,553</b>	<b>1,675,543</b>	<b>(4,157,010)</b>
<b>Total Capital Acquisitions</b>	<b>18,913,692</b>	<b>5,832,553</b>	<b>1,675,543</b>	<b>(4,157,010)</b>
<b>Capital Acquisitions Funded By:</b>				
	\$	\$	\$	\$
Capital grants and contributions	15,750,848	6,299,257	1,842,905	(4,456,352)
Other (disposals & C/Fwd)	505,394	0	54,408	54,408
Cash backed reserves				
Plant Reserve	180,000	0	0	0
Land & Buildings Reserve	499,505	159,505	0	(159,505)
Townscape Reserve	72,000	72,000	0	(72,000)
Telecommunications Reserve	0	0	0	0
Recreation Reserve	29,000	29,000	0	(29,000)
Insurance Excess Reserve	0	0	0	0
Contribution - operations	1,625,637	(727,209)	(221,770)	505,439
<b>Capital funding total</b>	<b>18,913,692</b>	<b>5,832,553</b>	<b>1,675,543</b>	<b>(4,157,010)</b>

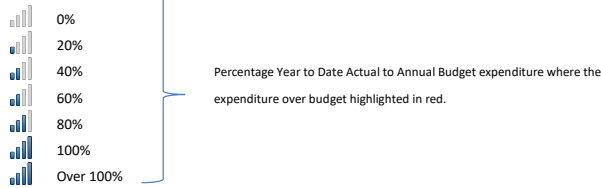
#### SIGNIFICANT ACCOUNTING POLICIES

All assets are initially recognised at cost. Cost is determined as the fair value of the assets given as consideration plus costs incidental to the acquisition. For assets acquired at no cost or for nominal consideration, cost is determined as fair value at the date of acquisition. The cost of non-current assets constructed by the local government includes the cost of all materials used in the construction, direct labour on the project and an appropriate proportion of variable and fixed overhead. Certain asset classes may be revalued on a regular basis such that the carrying values are not materially different from fair value. Assets carried at fair value are to be revalued with sufficient regularity to ensure the carrying amount does not differ materially from that determined using fair value at reporting date.



Capital expenditure total

Level of completion indicators



Level of completion indicator, please see table at the end of this note for further detail.

		Adopted			
Account Description		Budget	YTD Budget	YTD Actual	Variance (Under)/Over
<b>LAND &amp; BUILDINGS</b>					
K60	Dalwallinu Early Learning Centre - Capital Upgrade	2,701,136	900,376	5,423	894,953
K61	Landscaping - MPECLC	202,310	0	0	0
E081804	Capital Expenditure - Land	70,000	0	0	0
E092041	Construction of Employee Housing	477,497	0	120,159	(120,159)
K123	6B Cousins Rd, Dalwallinu - DCEO - Capital Upgrade	8,000	8,000	500	7,500
K19	10 Roberts Rd, Dalwallinu - Capital Upgrade	10,000	10,000	3,500	6,500
K18	2 Dowie St, Dalwallinu - Capital Upgrade	10,000	10,000	9,372	628
K91	3 Salmon Gums Place, Dalwallinu (CEO) Capital Upgrade	21,000	21,000	13,600	7,400
K17	4 Dowie St, Dalwallinu - Capital Upgrade	10,000	10,000	9,372	628
K14	Pioneer House Building Upgrade	12,500	12,500	0	12,500
K96	21 Rayner St, Dalwallinu JV - Capital Upgrade	20,000	0	3,500	(3,500)
K5	Dalwallinu Recreation Centre - Capital Upgrade	29,000	29,000	0	29,000
K49	Dalwallinu Caravan Park - Capital Upgrade	50,000	50,000	0	50,000
K88	Administration Office - Capital Upgrade	36,000	36,000	0	36,000
E093855	Purchase of 8 Myers Street Land	52,000	0	0	0
U65	Cemetery Toilet	60,000	0	0	0
<b>ROADS</b>					
E121700	Regional Road Group	840,146	28,224	4,688	23,537
E121720	Roads To Recovery	1,054,378	351,456	344,554	6,902
E121735	Wheatbelt Secondary Freight Network	4,829,000	1,462,703	53,581	1,409,122
E121730	Road Program	251,397	231,800	9,643	222,157
E121795	DRFAWA 962 - Flood Damage Repair Works	6,991,103	2,330,368	1,028,864	1,301,504
<b>OTHER INFRASTRUCTURE</b>					
E135875	Fencing for Dams	1,894	0	2,106	(2,106)
Z74	Shire Town Entry Statements	72,000	0	0	0
E112849	Capital Expenditure - Other Infrastructure	88,000	88,000	0	88,000
O18	Wubin Playground	55,000	55,000	0	55,000
O25	Dalwallinu Recreation Centre Cricket Pitch Upgrade	25,000	25,000	0	25,000
O22	Shade Structure - Dalwallinu Sports Club	108,000	0	20,795	(20,795)
E103844	Sewerage System Upgrade	217,417	72,462	0	72,462
O24	New Gazebo to Tourism Carpark	14,094	14,094	0	14,094
<b>FOOTPATH CONSTRUCTION</b>					
E121740	Footpath Construction	150,000	0	0	0
<b>PLANT &amp; EQUIPMENT</b>					
DL420	Purchase Crew Cab Truck	70,000	0	0	0
DL121	Purchase Tipper Truck 3.5T	70,000	0	0	0
DL194	Purchase Utility DL 194	30,000	0	0	0
DL747	Purchase Utility L/Hand	30,000	0	0	0
DL281	Purchase Utility WS	44,000	0	0	0
CP001	Purchase Sundry Plant	5,000	0	735	(735)
CP002	Purchase Water Tank 1000Lt on Skids	5,000	0	4,545	(4,545)
C126	Traffic Control Equipment (Wubin)	12,000	12,000	0	12,000
E145801	CEO's Vehicle DL 2	65,000	0	0	0
E147300	Cleaner Vehicle - DL	27,000	0	23,640	(23,640)
E134441	Standpipe Controllers	12,000	12,000	12,243	(243)
<b>FURNITURE &amp; FIXTURES</b>					
C124	Altus Payroll & Procurement Software Implementation	54,570	54,570	0	54,570
E11	Electronic Scoreboard Kalannie Sports Oval	10,000	0	0	0
C125	HPE Backup Server Proline	12,250	12,250	0	12,250
		<b>18,913,692</b>	<b>5,836,803</b>	<b>1,670,820</b>	<b>4,165,983</b>

NOTES TO THE STATEMENT OF FINANCIAL ACTIVITY  
FOR THE PERIOD ENDED 31 OCTOBER 2022

FINANCING ACTIVITIES  
NOTE 9  
BORROWINGS

Repayments - borrowings

Information on borrowings Particulars	Loan No.	1 July 2022	New Loans		Principal Repayments		Principal Outstanding		Interest Repayments	
			Actual	Budget	Actual	Budget	Actual	Budget	Actual	Budget
		\$	\$	\$	\$	\$	\$	\$	\$	\$
<b>Community amenities</b>										
Dalwallinu Sewerage Scheme	64	70,741			10,420	21,352	60,321	49,389	269	6,455
<b>Recreation and culture</b>										
Dalwallinu Discovery Centre	157	460,014			30,482	61,314	429,532	398,701	2,878	11,985
Dalwallinu Recreation Centre	159	2,525,185			30,684	61,829	2,494,501	2,463,356	17,910	93,295
<b>Other property and services</b>										
Bell St subdivision	160	562,568	0	0	79,630	159,505	482,938	403,063	722	8,408
<b>C/Fwd Balance</b>		3,618,508	0	0	151,216	304,000	3,467,292	3,314,509	21,780	120,143
<b>Total</b>		3,618,508	0	0	151,216	304,000	3,467,292	3,314,509	21,780	120,143
Current borrowings		304,000					152,784			
Non-current borrowings		3,314,508					3,314,508			
		3,618,508					3,467,292			

All debenture repayments were financed by general purpose revenue.

KEY INFORMATION

All loans and borrowings are initially recognised at the fair value of the consideration received less directly attributable transaction costs. After initial recognition, interest-bearing loans and borrowings are subsequently measured at amortised cost using the effective interest method. Fees paid on the establishment of loan facilities that are yield related are included as part of the carrying amount of the loans and borrowings.



**NOTES TO THE STATEMENT OF FINANCIAL ACTIVITY  
FOR THE PERIOD ENDED 31 OCTOBER 2022**

**FINANCING ACTIVITIES  
NOTE 10  
LEASE LIABILITIES**

**Movement in carrying amounts**

Information on leases Particulars	Lease No.	1 July 2022	New Leases		Principal Repayments		Principal Outstanding		Interest Repayments	
			Actual	Budget	Actual	Budget	Actual	Budget	Actual	Budget
		\$	\$	\$	\$	\$	\$	\$	\$	
<b>Recreation and culture</b>										
Maia Financial - Gymnasium Equipment	E6N0162493	18,270			8,999	17,851	9,271	419	168	225
<b>Other property and services</b>										
Ricoh - 2 x photocopiers		4,758			1,753	4,758	3,005	0	40	52
<b>Total</b>		<b>23,028</b>	<b>0</b>	<b>0</b>	<b>10,752</b>	<b>22,609</b>	<b>12,276</b>	<b>419</b>	<b>208</b>	<b>277</b>
Current lease liabilities		23,028					12,039			
Non-current lease liabilities		0					0			
		<b>23,028</b>					<b>12,039</b>			

All lease repayments were financed by general purpose revenue.

**KEY INFORMATION**

At inception of a contract, the Shire assesses if the contract contains or is a lease. A contract is, or contains, a lease if the contract conveys the right to control the use of an identified asset for a period of time in exchange for consideration. At the commencement date, a right of use asset is recognised at cost and lease liability at the present value of the lease payments that are not paid at that date. The lease payments are discounted using that date. The lease payments are discounted using the interest rate implicit in the lease, if that rate can be readily determined. If that rate cannot be readily determined, the Shire uses its incremental borrowing rate.

All contracts classified as short-term leases (i.e. a lease with a remaining term of 12 months or less) and leases of low value assets are recognised as an operating expense on a straight-line basis over the term of the lease.

NOTES TO THE STATEMENT OF FINANCIAL ACTIVITY  
FOR THE PERIOD ENDED 31 OCTOBER 2022

OPERATING ACTIVITIES  
NOTE 11  
CASH RESERVES

Cash backed reserve

Reserve name	Opening Balance	Budget Interest Earned	Actual Interest Earned	Budget Transfers In (+)	Actual Transfers In (+)	Budget Transfers Out (-)	Actual Transfers Out (-)	Budget Closing Balance	Actual YTD Closing Balance
	\$	\$	\$	\$	\$	\$	\$	\$	\$
Leave Reserve	256,140	769	174	0	0	(13,891)	0	243,018	256,314
Plant Reserve	601,957	1,807	409	0	0	(180,000)	0	423,764	602,366
Joint Venture Housing Reserve	161,242	484	110	27,536	0	(20,000)	0	169,262	161,352
Land & Buildings Reserve	1,088,585	4,017	740	339,394	0	(499,505)	0	932,491	1,089,325
Sewerage Scheme Reserve	1,027,548	3,084	690	204,449	0	(217,417)	0	1,017,664	1,028,238
Townscape Reserve	72,246	217	49	0	0	(72,000)	0	463	72,295
Telecommunications Reserve	496	1	0	0	0	0	0	497	496
Swimming Pool Reserve	191,521	575	130	0	0	0	0	192,096	191,651
Recreation Reserve	129,847	390	88	20,000	0	(29,000)	0	121,237	129,935
Insurance Excess Reserve	92,174	277	71	16,000	0	0	0	108,451	92,245
Waste Management Reserve	172,381	517	117	0	0	0	0	172,898	172,498
	<b>3,794,137</b>	<b>12,138</b>	<b>2,578</b>	<b>607,379</b>	<b>0</b>	<b>(1,031,813)</b>	<b>0</b>	<b>3,381,841</b>	<b>3,796,715</b>

Other current liabilities	Note	Opening Balance 1 July 2022	Liability Increase	Liability Reduction	Closing Balance 31 October 2022
		\$	\$	\$	\$
<b>Contract liabilities</b>					
Unspent grants, contributions and reimbursements					
- operating	13	23,053	0.00	(4,521)	18,532
- non-operating	14	765,173	4,244,263	(1,842,905)	3,166,531
<b>Total unspent grants, contributions and reimbursements</b>		788,226	4,244,263	(1,847,426)	3,185,063
Other Contract liabilities [describe]		0			0
Other Contract liabilities [describe]		0			0
Other Contract liabilities [describe]		0			0
<b>Provisions</b>					
Annual leave		193,815			193,815
Long service leave		217,760			217,760
Landfill Sites		0			0
<b>Total Provisions</b>		411,575	0	0	411,575
<b>Total other current assets</b>		<b>1,199,801</b>	<b>4,244,263</b>	<b>(1,847,426)</b>	<b>3,596,638.00</b>

Amounts shown above include GST (where applicable)

A breakdown of contract liabilities and associated movements is provided on the following pages at Note 13 and 14

#### KEY INFORMATION

##### Provisions

Provisions are recognised when the Shire has a present legal or constructive obligation, as a result of past events, for which it is probable that an outflow of economic benefits will result and that outflow can be reliably measured.

Provisions are measured using the best estimate of the amounts required to settle the obligation at the end of the reporting period.

##### Employee benefits

###### Short-term employee benefits

Provision is made for the Shire's obligations for short-term employee benefits. Short-term employee benefits are benefits (other than termination benefits) that are expected to be settled wholly before 12 months after the end of the annual reporting period in which the employees render the related service, including wages, salaries and sick leave. Short-term employee benefits are measured at the (undiscounted) amounts expected to be paid when the obligation is settled.

The Shire's obligations for short-term employee benefits such as wages, salaries and sick leave are recognised as a part of current trade and other payables in the calculation of net current assets.

###### Other long-term employee benefits

The Shire's obligations for employees' annual leave and long service leave entitlements are recognised as provisions in the statement of financial position.

Long-term employee benefits are measured at the present value of the expected future payments to be made to employees. Expected future payments incorporate anticipated future wage and salary levels, durations of service and employee departures and are discounted at rates determined by reference to market yields at the end of the reporting period on government bonds that have maturity dates that approximate the terms of the obligations. Any remeasurements for changes in assumptions of obligations for other long-term employee benefits are recognised in profit or loss in the periods in which the changes occur. The Shire's obligations for long-term employee benefits are presented as non-current provisions in its statement of financial position, except where the Shire does not have an unconditional right to defer settlement for at least 12 months after the end of the reporting period, in which case the obligations are presented as current provisions.

##### Contract liabilities

An entity's obligation to transfer goods or services to a customer for which the entity has received consideration (or the amount is due) from the customer. Grants to acquire or construct recognisable non-financial assets to identified specifications be constructed to be controlled by the Shire are recognised as a liability until such time as the Shire satisfies its obligations under the agreement.

NOTES TO THE STATEMENT OF FINANCIAL ACTIVITY  
FOR THE PERIOD ENDED 31 OCTOBER 2022

NOTE 13

OPERATING GRANTS AND CONTRIBUTIONS

Provider	Unspent operating grant, subsidies and contributions liability					Operating grants, subsidies and contributions revenue					
	Liability 1 July 2022	Increase in Liability	Liability Reduction (As revenue)	Liability 31 Oct 2022	Current Liability 31 Oct 2022	Adopted Budget Revenue	YTD Budget	Annual Budget	Budget Variations	Expected	YTD Revenue Actual
	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$
<b>Operating grants and subsidies</b>											
<b>General purpose funding</b>											
General Purpose Grant (FAGS)				0		128,312	32,078	128,312		128,312	137,958
Untied Roads Grant (FAGS)				0		129,589	32,397	129,589		129,589	68,444
<b>Law, order, public safety</b>											
DFES Operating Grant				0		30,540	7,635	30,540		30,540	24,786
<b>Community amenities</b>											
Stronger Communities Round 7	18,053			18,053						0	0
<b>Recreation and culture</b>											
Grants - Library				0						0	4,901
Road Safety Commision Grant	5,000		(4,521)	479						0	4,521
<b>Transport</b>											
Direct Grant - Main Roads				0		321,681	321,681	321,681		321,681	328,600
	<b>23,053</b>	<b>0</b>	<b>(4,521)</b>	<b>18,532</b>	<b>0</b>	<b>610,122</b>	<b>393,791</b>	<b>610,122</b>	<b>0</b>	<b>610,122</b>	<b>569,210</b>
<b>Operating contributions</b>											
<b>Governance</b>											
Miscellaneous Reimbursements				0		100	32	100		100	0
Reimbursements Members of Council				0		0	0	0		0	173
<b>General purpose funding</b>											
Ex- Gratia Rates				0		41,612	41,612	41,612		41,612	47,140
Collection of Legal Costs				0		16,000	5,330	16,000		16,000	4,067
<b>Health</b>											
Miscellaneous Reimbursements				0		9,850	3,281	9,850		9,850	3,082
<b>Education and welfare</b>											
Miscellaneous Reimbursements				0		3,301	1,082	3,301		3,301	2,412
<b>Housing</b>											
Miscellaneous Reimbursements				0		14,681	4,889	14,681		14,681	8,330
<b>Community amenities</b>											
Miscellaneous Reimbursements				0		2,900	1,047	2,900		2,900	2,118
Containers Deposit Scheme Income				0		1,500	497	1,500		1,500	111

NOTES TO THE STATEMENT OF FINANCIAL ACTIVITY  
FOR THE PERIOD ENDED 31 OCTOBER 2022

NOTE 13

OPERATING GRANTS AND CONTRIBUTIONS

Provider	Unspent operating grant, subsidies and contributions liability					Operating grants, subsidies and contributions revenue					
	Liability 1 July 2022	Increase in Liability	Liability Reduction (As revenue)	Liability 31 Oct 2022	Current Liability 31 Oct 2022	Adopted Budget Revenue	YTD Budget	Annual Budget	Budget Variations	Expected	YTD Revenue Actual
	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$
<b>Recreation and culture</b>											
Miscellaneous Reimbursements				0		66,197	21,394	66,197	0	66,197	15,514
<b>Transport</b>											
Street Lighting Contribution				0		2,000	664	2,000		2,000	0
Miscellaneous Reimbursements				0		500	164	500		500	233
<b>Economic services</b>											
Miscellaneous Reimbursements				0		47,385	15,789	47,385		47,385	16,093
<b>Other property and services</b>											
Fuel Rebates				0		45,000	14,997	45,000		45,000	10,655
Miscellaneous Reimbursements				0		19,200	6,377	19,200		19,200	6,589
Parental Leave Reimbursements				0		4,635	1,544	4,635		4,635	0
	0	0	0	0	0	274,861	118,699	274,861	0	274,861	116,517
<b>TOTALS</b>	<b>23,053</b>	<b>0</b>	<b>(4,521)</b>	<b>18,532</b>	<b>0</b>	<b>884,983</b>	<b>512,490</b>	<b>884,983</b>	<b>0</b>	<b>884,983</b>	<b>685,726</b>

**NOTES TO THE STATEMENT OF FINANCIAL ACTIVITY  
FOR THE PERIOD ENDED 31 OCTOBER 2022**

**NOTE 14**

**NON-OPERATING GRANTS AND CONTRIBUTIONS**

Provider	Unspent non operating grants, subsidies and contributions liability					Non operating grants, subsidies and contributions revenue		
	Liability 1 July 2022	Increase in Liability	Liability Reduction (As revenue)	Liability 31 Oct 2022	Current Liability 31 Oct 2022	Adopted Budget Revenue	YTD Budget	YTD Revenue Actual (b)
	\$	\$	\$	\$	\$	\$	\$	\$
<b>Non-operating grants and subsidies</b>								
<b>Education and welfare</b>								
LRCIP Phase 3 Grant MP Building	700,000	0	(2,230)	697,770	697,770	1,400,000	1,602,310	2,230
LRCIP Phase 3.1 Grant Landscapping				0		202,310	1,602,310	0
<b>Housing</b>								
LRCIP Phase 3.1 Grant - Fencing				0		6,000	6,000	0
<b>Community amenities</b>								
LRCIP Phase 3.1 Grant - Cemetery Toilet				0	0	60,000	0	0
<b>Recreation and culture</b>								
LRCIP Phase 3.1 Grant - Other Rc & Sport			0	0	0	118,000	118,000	0
LRCIP Phase 3.1 Grant - Swimming Pool				0		88,000	88,000	0
<b>Transport</b>								
Regional Road Group Grant	5,263	201,460	(3,125)	203,598	203,598	576,395	288,196	3,125
Roads to Recovery Grant		209,144	(209,144)	0	0	723,000	180,750	209,144
Wheatbelt Secondary Freight Network Grant		1,723,540	(48,303)	1,675,238	1,675,238	4,841,324	532,473	48,303
DRFAWA Grant		2,110,119	(1,580,103)	530,016	530,016	7,330,399	3,090,108	1,580,103
GRANT LRCIP Phase 3 Footpaths	59,910			59,910	59,910	119,820	329,820	0
GRANT LRCIP Phase 3.1 Rabbit Proof Fence				0		210,000	329,820	
GRANT LRCIP Phase 3.1 Traffic control equip				0		12,000	0	0
<b>Economic services</b>								
LRCIP Phase 3.1 Grant - Tourism			0	0	0	63,600	63,600	0
	<b>765,173</b>	<b>4,244,263</b>	<b>(1,842,905)</b>	<b>3,166,531</b>	<b>3,166,531</b>	<b>15,750,848</b>	<b>8,231,387</b>	<b>1,842,905</b>

The material variance thresholds are adopted annually by Council as an indicator of whether the actual expenditure or revenue varies from the year to date Actual materially.

The material variance adopted by Council for the 2022-23 year is \$10,000 or 10.00% whichever is the greater.

Reporting Program	Var. \$	Var. %	Timing/ Permanent	Explanation of Variance
	\$	%		
<b>Revenue from operating activities</b>				
General purpose funding - other	158,501	129.99%	▲ Permanent	Fags ver budget by 141k & Ex Gratia over budget by 5.5k
Law, order and public safety	16,055	149.82%	▲ Timing	2nd DFES grant payment budgeted to rec in December
Housing	19,553	16.28%	▲ Timing	Rental income over YTD budget
Recreation and culture	14,549	31.06%	▲ Timing	Gym Revenue up compared to budget
Economic services	(23,982)	(39.99%)	▼ Timing	Standpipe Water Charges under YTD Budget
Other property and services	62,878	43.95%	▲ Timing	Budget timing for sale of gravel
<b>Expenditure from operating activities</b>				
Law, order and public safety	27,928	32.54%	▼ Timing	Depreciation not run for FY yet. Under 26k to YTD Budget
Education and welfare	14,128	32.43%	▼ Timing	Consultant expenditure under budgeted for year
Housing	45,177	27.92%	▼ Timing	Dep down 59k
Community amenities	61,397	21.46%	▼ Timing	Dep down 20k, sewerage maintenance down 16k, other accounts down slightly to YTD Budget
Recreation and culture	356,974	42.88%	▼ Timing	Dep down 257k Parks & Gardens down 76k other accounts slight variances to YTD budget
Transport	1,496,980	66.94%	▼ Timing	Depreciation not yet ran for year down \$1,483,000
Economic services	81,725	44.21%	▼ Timing	Standpipe water usage down 30k, Dep down 20k other accounts down slightly to YTD Budget
Other property and services	80,260	67.06%	▼ Timing	Dep under budget 100k, other slight variances in accounts
<b>Investing activities</b>				
Proceeds from non-operating grants, subsidies and contributions	(6,388,482)	(77.61%)	▼ Timing	We have budgeted to receive grants which are held in Contract Liability until project expenditure matches revenue
Proceeds from disposal of assets	54,408	0.00%	▲ Timing	Timing variance between budget to date and actuals.
Payments for property, plant and equipment and infrastructure	4,157,010	71.27%	▼ Timing	Refer to Capital Projects Note 8
<b>Financing activities</b>				
Repayment of debentures	(151,216)	0.00%	▼ Timing	Timing variance between budget to date and actuals.

# Shire of Dalwallinu Bank Reconciliation as at 31 October 2022

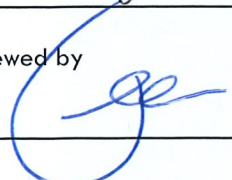
<b>Balance as per General Ledger as at 1 October 2022</b>				
A910000 - Municipal Fund	58,793.03 ✓			
A910001 - Telenet Saver	3,332,137.29 ✓	3,390,930.32		3,390,930.32
<b>Add Cash Receipts</b>				
Daily Receipts		2,789,121.87 ✓		
BPAY Receipts		112,106.27 ✓		
Interest Received		1,775.34 ✓		
				2,903,003.48
				6,293,933.80
<b>Less Cash Payments</b>				
EFT Payments - Payroll		122,822.00 ✓		
EFT Payments (EFT13708-EFT13807)		1,336,372.92 ✓		
Direct Debit - Credit Card Payments (DD16911.1)		8,235.25 ✓		
Direct Debit - Housing Bonds (DD16902.1 & DD16917.1)		207.00 ✓		
Direct Debit - Gym Equipment Lease (DD16888.1)		5,144.45 ✓		
Direct Debit - Superannuation Payments		25,058.16 ✓		
Bank Fees		2,384.82 ✓		
Loan Payments Loan 157 - Dalwallinu Discovery Centre		35,749.43 ✓		
Direct Debit - Payment to DoT		132,551.80 ✓		
				1,668,525.83
<b>Balance as per General Ledger as at 31 October 2022</b>				
A910000 - Municipal Fund	80,495.34 ✓			
A910001 - Telenet Saver	4,544,912.63 ✓			
		4,625,407.97	0.00	4,625,407.97
<b>Add</b>				
<b>Less</b>				
Banking 28/10/22 Banked on 31/10/22				985.65
Banking 31/10/22 Banked on 01/10/22				5.30
Australia Post banking error 07/09/2022				300.00
				4,624,117.02
<b>Balance as per Bank Statements as at 31 October 2022</b>				
Muni Cheque Account - 5365914		79,204.39 ✓		
Business Telenet Saver - 0373562		4,544,912.63 ✓	0.00	4,624,117.02

Prepared by



2/11/2022

Reviewed by



8/11/22





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If you're a business customer, call 13 7000

## BUSINESS ZERO TRAN ACCOUNT STATEMENT MUNI FUND

BSB Number	<b>306-008</b>
Account Number	<b>536591-4</b>
Period	<b>20 Oct 22 - 31 Oct 22</b>
Page 1 of 6	Statement Number 4125

THE COMMITTEE  
SHIRE OF DALWALLINU  
PO BOX 141  
DALWALLINU WA 6609

Account of: SHIRE OF DALWALLINU

TRANSACTION DETAILS FOR ACCOUNT NUMBER: 536591-4				
Date	Particulars	Debit	Credit	Balance
20 OCT 22	<b>OPENING BALANCE</b>			<b>\$183,399.73</b>
20 OCT 22	BILL PAYMENT 1000005646 001 CBA202210200		\$20.00	\$183,419.73
20 OCT 22	19.10.22		\$12.00	\$183,431.73
20 OCT 22	4 DOWIE		\$460.00	\$183,891.73
20 OCT 22	RICHARD SANTIAGO 03:51PM 20Oct 38 Leahy		\$303.00	\$184,194.73
20 OCT 22	BILL PAYMENT 1000573022 001 WBC202210195		\$550.00	\$184,744.73
20 OCT 22	Swimless BATTERHAM,BARRY NEIL		\$192.00	\$184,936.73
20 OCT 22	Telenet to muni		\$295,000.00	\$479,936.73
20 OCT 22	Muni to Corporate Credit Card	\$8,235.25		\$471,701.48
20 OCT 22	CREDITORS 20.10.22	\$412,442.90		\$59,258.58
20 OCT 22	DEPT OF FIRE & E 499412		\$11,432.30	\$70,690.88
20 OCT 22	CBA POS POS 16494300 20OCT		\$68.50	\$70,759.38
20 OCT 22	CBA POS POS 16507100 20OCT		\$3,618.93	\$74,378.31
20 OCT 22	TRANSPORT DALO20221018	\$1,992.35		\$72,385.96
20 OCT 22	AMPAC Debt Recov 106674		\$200.00	\$72,585.96
21 OCT 22	Dallcon Rent		\$303.00	\$72,888.96
21 OCT 22	BILL PAYMENT 1000004535 001 CBA202210210		\$30.00	\$72,918.96
21 OCT 22	BILL PAYMENT 1000003761 001 NAB202210213		\$50.00	\$72,968.96
21 OCT 22	SHI00210029		\$106.50	\$73,075.46
21 OCT 22	BILL PAYMENT 1000005752 001 251202210213		\$30.00	\$73,105.46
21 OCT 22	BILL PAYMENT 1000064463 001 WBC202210212		\$448.77	\$73,554.23
21 OCT 22	BILL PAYMENT 2000499871 001 ANZ202210211		\$701.90	\$74,256.13
21 OCT 22	BILL PAYMENT 1000461152 001 BWA202210210		\$70.00	\$74,326.13
21 OCT 22	BILL PAYMENT 2000493604 001 BWA202210210		\$62.87	\$74,389.00
21 OCT 22	BILL PAYMENT 2000493604 001 BWA202210210		\$946.88	\$75,335.88
21 OCT 22	BILL PAYMENT 1000063796 001 BWA202210210		\$1,855.20	\$77,191.08
21 OCT 22	CBA POS POS 16494300 21OCT		\$54.00	\$77,245.08
21 OCT 22	<b>CARRIED FORWARD</b>			<b>\$77,245.08</b>

Make sure you check the entries on this statement carefully. If you see something that doesn't seem right, call us on 13 17 19. For more information about your account, and for details of the dispute resolution mechanism that covers disputed transactions and complaints (including how to access the mechanism and to make a complaint – including to the external dispute resolution body - the Australian Financial Complaints Authority), please see the Product Disclosure Statement for this product (available at our website and branches), or call/visit us. Bankwest, a division of Commonwealth Bank of Australia ABN 48 123 123 124 AFSL / Australian credit licence 234945. If you don't want to receive promotional information from us, let us know by calling us on 13 17 19.

<b>TRANSACTION DETAILS (Cont.)</b>				
<b>Date</b>	<b>Particulars</b>	<b>Debit</b>	<b>Credit</b>	<b>Balance</b>
21 OCT 22	<b>BROUGHT FORWARD</b>			<b>\$77,245.08</b>
21 OCT 22	CBA POS POS 16507100 21OCT		\$5,192.75	\$82,437.83
21 OCT 22	TRANSPORT DALO20221019	\$9,252.40		\$73,185.43
21 OCT 22	BOND ADMINISTRAT BOND REF 43350/22	\$103.50		\$73,081.93
24 OCT 22	J D Cream 10:53PM 23Oct Di Cream		\$520.00	\$73,601.93
24 OCT 22	BILL PAYMENT 1000714012 001 WBC202210233		\$376.84	\$73,978.77
24 OCT 22	M FOGARTY 11:23AM 22Oct Mfogarty rent 22		\$207.00	\$74,185.77
24 OCT 22	0000000-094 DALWALLINU LPO 21OCT2022		\$533.50	\$74,719.27
24 OCT 22	CTRLINK PENSION 190P0164555125968L		\$149.01	\$74,868.28
24 OCT 22	IRENE DUTTON Irene Dutton rent		\$270.00	\$75,138.28
24 OCT 22	Ezidebit 15251157		\$416.50	\$75,554.78
24 OCT 22	CBA POS POS 16494300 22OCT		\$31.50	\$75,586.28
24 OCT 22	CBA POS POS 16494300 23OCT		\$165.00	\$75,751.28
24 OCT 22	EMMA BRYANT Rent Emma Bryant		\$187.00	\$75,938.28
24 OCT 22	TRANSPORT DALO20221020	\$977.30		\$74,960.98
25 OCT 22	BILL PAYMENT 1000002836 001 CBA202210250		\$60.00	\$75,020.98
25 OCT 22	BILL PAYMENT 1000002562 001 ANZ202210257		\$2,583.75	\$77,604.73
25 OCT 22	BILL PAYMENT 1000063848 001 ANZ202210255		\$2,989.10	\$80,593.83
25 OCT 22	CREDIT TRANSFER FROM MRS JAQUELINE F :		\$270.00	\$80,863.83
25 OCT 22	Telenet to muni		\$110,000.00	\$190,863.83
25 OCT 22	CREDITORS 24.10.22	\$144,511.63		\$46,352.20
25 OCT 22	0000000-095 DALWALLINU LPO 24OCT2022		\$461.95	\$46,814.15
25 OCT 22	CBA POS POS 16507100 24OCT2022 24OCT		\$21,450.70	\$68,264.85
25 OCT 22	CBA POS POS 16494300 25OCT		\$413.00	\$68,677.85
25 OCT 22	CBA POS POS 16507100 25OCT		\$1,450.85	\$70,128.70
25 OCT 22	BRETT WALLIS shire rates		\$30.00	\$70,158.70
25 OCT 22	TRANSPORT DALO20221021	\$4,722.35		\$65,436.35
26 OCT 22	25/10/2022		\$830.35	\$66,266.70
26 OCT 22	BILL PAYMENT 1000009910 001 WBC202210268		\$208.55	\$66,475.25
26 OCT 22	BILL PAYMENT 1000010200 001 WBC202210260		\$208.55	\$66,683.80
26 OCT 22	BILL PAYMENT 1000010316 001 WBC202210262		\$208.55	\$66,892.35
26 OCT 22	BILL PAYMENT 1000060278 001 WBC202210267		\$208.55	\$67,100.90
26 OCT 22	BILL PAYMENT 1000064038 001 WBC202210269		\$208.55	\$67,309.45
26 OCT 22	BILL PAYMENT 1000064047 001 WBC202210263		\$208.55	\$67,518.00
26 OCT 22	BILL PAYMENT 1000761562 001 WBC202210261		\$208.55	\$67,726.55
26 OCT 22	BILL PAYMENT 1000761614 001 WBC202210269		\$184.95	\$67,911.50
26 OCT 22	BILL PAYMENT 2000490432 001 WBC202210255		\$585.00	\$68,496.50
26 OCT 22	BILL PAYMENT 2000499312 001 ANZ202210266		\$95.00	\$68,591.50
26 OCT 22	R SHAW 04:31PM 26Oct Wornesplaque		\$363.00	\$68,954.50
26 OCT 22	C MCKAY 09:49AM 26Oct Mckay gym		\$195.00	\$69,149.50
26 OCT 22	BILL PAYMENT 2000500755 001 BWA202210260		\$233.55	\$69,383.05
26 OCT 22	BILL PAYMENT 2000500755 001 BWA202210260		\$4,290.23	\$73,673.28
26 OCT 22	0000000-096 DALWALLINU LPO 25OCT2022		\$7,710.25	\$81,383.53
26 OCT 22	CBA POS POS 16494300 26OCT		\$153.50	\$81,537.03
26 OCT 22	CBA POS POS 16507100 26OCT		\$4,978.15	\$86,515.18
26 OCT 22	TRANSPORT DALO20221024	\$27,788.95		\$58,726.23
27 OCT 22	A138 de trafford DETRAFFORD,SANDRA MARGA/		\$50.00	\$58,776.23
27 OCT 22	A378 HARE,MICHAEL JOHN		\$50.00	\$58,826.23
27 OCT 22	BILL PAYMENT 1000005646 001 CBA202210270		\$20.00	\$58,846.23
27 OCT 22	26/10/2022		\$31.50	\$58,877.73
27 OCT 22	<b>CARRIED FORWARD</b>			<b>\$58,877.73</b>

<b>TRANSACTION DETAILS (Cont.)</b>				
<b>Date</b>	<b>Particulars</b>	<b>Debit</b>	<b>Credit</b>	<b>Balance</b>
27 OCT 22	<b>BROUGHT FORWARD</b>			<b>\$58,877.73</b>
27 OCT 22	44859YMBBMAC/PNTS/		\$432.00	\$59,309.73
27 OCT 22	RICHARD SANTIAGO 03:48PM 27Oct 38 Leahy		\$303.00	\$59,612.73
27 OCT 22	CREDIT TRANSFER FROM PAMELA MARGARE		\$50.00	\$59,662.73
27 OCT 22	CREDIT TRANSFER FROM ANDREW WITHERIL		\$260.00	\$59,922.73
27 OCT 22	BILL PAYMENT 1000004456 001 BWA202210270		\$454.70	\$60,377.43
27 OCT 22	BILL PAYMENT 1000006951 001 BWA202210270		\$278.70	\$60,656.13
27 OCT 22	Telenet to Muni		\$66,000.00	\$126,656.13
27 OCT 22	PAY	\$62,556.00		\$64,100.13
27 OCT 22	DEPT OF FIRE & E 499827		\$4,400.00	\$68,500.13
27 OCT 22	CBA POS POS 16494300 27OCT		\$943.50	\$69,443.63
27 OCT 22	CBA POS POS 16507100 27OCT		\$9,220.80	\$78,664.43
27 OCT 22	JORDAN DAVENPORT JDavenport Gym		\$35.00	\$78,699.43
27 OCT 22	TRANSPORT DALO20221025	\$998.20		\$77,701.23
27 OCT 22	AMPAC Debt Recov 106772		\$1,760.89	\$79,462.12
27 OCT 22	SuperChoice P/L 079448426450012710	\$12,717.01		\$66,745.11
28 OCT 22	Dallcon Rent		\$303.00	\$67,048.11
28 OCT 22	BILL PAYMENT 1000004535 001 CBA202210280		\$30.00	\$67,078.11
28 OCT 22	BILL PAYMENT 1000063103 001 CBA202210280		\$100.00	\$67,178.11
28 OCT 22	BILL PAYMENT 1000003761 001 NAB202210283		\$50.00	\$67,228.11
28 OCT 22	27.10.2022		\$433.40	\$67,661.51
28 OCT 22	9655 MACPHERSON		\$1,017.00	\$68,678.51
28 OCT 22	BILL PAYMENT 1000006827 001 NAB202210283		\$286.25	\$68,964.76
28 OCT 22	BILL PAYMENT 1000063291 001 ANZ202210287		\$412.60	\$69,377.36
28 OCT 22	BILL PAYMENT 1000064579 001 WBC202210276		\$573.42	\$69,950.78
28 OCT 22	CREDIT TRANSFER FROM STEPHEN ROSS MC		\$270.00	\$70,220.78
28 OCT 22	BILL PAYMENT 1000461152 001 BWA202210280		\$70.00	\$70,290.78
28 OCT 22	C FOGARTY 10:46AM 28Oct Chloe Fogarty		\$374.00	\$70,664.78
28 OCT 22	BILL PAYMENT 2000491349 001 BWA202210280		\$712.00	\$71,376.78
28 OCT 22	BILL PAYMENT 2000491349 001 BWA202210280		\$505.00	\$71,881.78
28 OCT 22	BILL PAYMENT 2000491349 001 BWA202210280		\$712.00	\$72,593.78
28 OCT 22	BERNADETTE HARME		\$606.00	\$73,199.78
28 OCT 22	CBA POS POS 16494300 28OCT		\$3.50	\$73,203.28
28 OCT 22	CBA POS POS 16507100 28OCT		\$4,034.91	\$77,238.19
28 OCT 22	TRANSPORT DALO20221026	\$4,758.15		\$72,480.04
28 OCT 22	N FOGARTY N FOGARTY RENT		\$520.00	\$73,000.04
31 OCT 22	U3 Sullivan LEHMANN,RACHAEL ELIZABETH		\$260.00	\$73,260.04
31 OCT 22	BILL PAYMENT 1000006261 001 CBA202210300		\$637.46	\$73,897.50
31 OCT 22	BILL PAYMENT 1000417139 001 CBA202210310		\$334.79	\$74,232.29
31 OCT 22	BILL PAYMENT 1000009594 001 STG202210310		\$208.55	\$74,440.84
31 OCT 22	BILL PAYMENT 1000422030 001 ANZ202210314		\$390.80	\$74,831.64
31 OCT 22	CREDIT TRANSFER FROM LINDA JOSEPHINE ,		\$260.00	\$75,091.64
31 OCT 22	H HUGHES 11:01AM 29Oct Hannah rent 40 le		\$640.00	\$75,731.64
31 OCT 22	BILL PAYMENT 2000500728 001 BWA202210310		\$4,864.73	\$80,596.37
31 OCT 22	BILL PAYMENT 1000063884 001 BWA202210310		\$1,344.20	\$81,940.57
31 OCT 22	Ezidebit 15301277		\$600.42	\$82,540.99
31 OCT 22	CBA POS POS 16494300 30OCT		\$7.00	\$82,547.99
31 OCT 22	CBA POS POS 16507100 31OCT		\$5,556.00	\$88,103.99
31 OCT 22	BRETT WALLIS shire rates		\$30.00	\$88,133.99
31 OCT 22	EMMA BRYANT Rent Emma Bryant		\$187.00	\$88,320.99
31 OCT 22	<b>CARRIED FORWARD</b>			<b>\$88,320.99</b>

<b>TRANSACTION DETAILS (Cont.)</b>				
<b>Date</b>	<b>Particulars</b>	<b>Debit</b>	<b>Credit</b>	<b>Balance</b>
31 OCT 22	<b>BROUGHT FORWARD</b>			<b>\$88,320.99</b>
31 OCT 22	TRANSPORT DALO20221027	\$9,116.60		\$79,204.39
31 OCT 22	<b>CLOSING BALANCE</b>			<b>\$79,204.39</b>
		TOTAL DEBITS	\$700,172.59	
		TOTAL CREDITS	\$595,977.25	

# TRANSACTION SEARCH RESULTS

**Account:** 302-162 0373562  
**Account Nickname:** BUSINESS TELENET SAVER  
**Range:** October  
**Transaction Types:** All Transaction Types  
**Opening Balance:** \$3,332,137.29  
**Closing Balance:** \$4,544,912.63

BSB NO.	ACCOUNT NO.	TRANSACTION DATE	NARRATION	CHEQUE NO.	DEBIT	CREDIT	ACCOUNT BALANCE
302-162	0373562	27/10/2022	Telenet to Muni		-\$66,000.00		\$4,544,912.63
302-162	0373562	25/10/2022	Telenet to muni		-\$110,000.00		\$4,610,912.63
302-162	0373562	20/10/2022	Telenet to muni		-\$295,000.00		\$4,720,912.63
302-162	0373562	17/10/2022	Muni to Telenet			\$410,000.00	\$5,015,912.63
302-162	0373562	13/10/2022	Telenet to muni		-\$70,000.00		\$4,605,912.63
302-162	0373562	12/10/2022	Muni to telenet			\$1,602,000.00	\$4,675,912.63
302-162	0373562	07/10/2022	To Muni		-\$20,000.00		\$3,073,912.63
302-162	0373562	06/10/2022	Telenet to Muni		-\$240,000.00		\$3,093,912.63
302-162	0373562	03/10/2022	CREDIT INTEREST			\$1,775.34	\$3,333,912.63

## Shire of Dalwallinu Trust Bank Reconciliation as at 31 October 2022

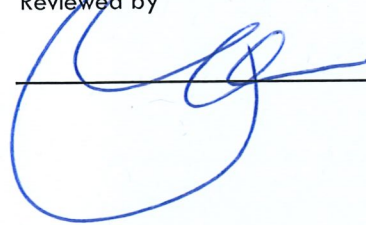
<b>Balance as per General Ledger as at 1 October 2022</b> 2T9900000 - Trust Fund	0.00	0.00		0.00
<b>Add Cash Receipts</b>				0.00
<b>Less Cash Payments</b>		0.00		0.00
<b>Balance as per General Ledger as at 31 October 2022</b> 2T9900000 - Trust Fund	0.00	0.00	0.00	0.00
<b>Add</b>				
<b>Less</b>				
<b>Balance as per Bank Statements as at 31 October 2022</b> 2T9900000 - Trust Fund		0.00	0.00	0.00

Prepared by



1/11/2022

Reviewed by



8/11/2022



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Bankwest Online Banking, or call on 13 17 19  
If you're a business customer, call 13 7000

## BUSINESS ZERO TRAN ACCOUNT STATEMENT TRUST

BSB Number	<b>306-008</b>
Account Number	<b>536593-0</b>
Period	<b>1 Oct 22 - 31 Oct 22</b>
Page 1 of 3	Statement Number 3574

THE COMMITTEE MEMBERS  
SHIRE OF DALWALLINU  
PO BOX 141  
DALWALLINU WA 6609

Account of: SHIRE OF DALWALLINU

### TRANSACTION DETAILS FOR ACCOUNT NUMBER: 536593-0

Date	Particulars	Debit	Credit	Balance
01 OCT 22	<b>OPENING BALANCE</b>			<b>\$0.00</b>
19 OCT 22	Muni to Trust		\$1.00	\$1.00
19 OCT 22	Trust to Muni	\$1.00		\$0.00
31 OCT 22	<b>CLOSING BALANCE</b>			<b>\$0.00</b>
	TOTAL DEBITS	\$1.00		
	TOTAL CREDITS		\$1.00	

Make sure you check the entries on this statement carefully. If you see something that doesn't seem right, call us on 13 17 19. For more information about your account, and for details of the dispute resolution mechanism that covers disputed transactions and complaints (including how to access the mechanism and to make a complaint – including to the external dispute resolution body - the Australian Financial Complaints Authority), please see the Product Disclosure Statement for this product (available at our website and branches), or call/visit us. Bankwest, a division of Commonwealth Bank of Australia ABN 48 123 123 124 AFSL / Australian credit licence 234945. If you don't want to receive promotional information from us, let us know by calling us on 13 17 19.



280BC3C 000105 (053N)

CARD ADMINISTRATOR  
SHIRE OF DALWALLINU  
PO BOX 141  
DALWALLINU WA 6609

Account Name **SHIRE OF DALWALLINU**

Period **9 Sep 22 - 7 Oct 22**

Facility Limit **\$20,000**

To pay by cheque, simply detach this cut off slip and refer to the instructions overleaf on how to return to Bankwest.

**YOUR ACCOUNT SUMMARY**

<b>Opening Balance</b>	<b>\$10,285.22</b>
Purchases	\$8,459.14
Withdrawals	\$0.00
(Cash Advances & Balance Transfers)	
Interest & Other Charges	\$0.00
Payments & Other Credits	\$10,509.11 CR
<b>Closing Balance</b>	<b>\$8,235.25</b>

**PAYMENT REQUIRED**

Account Name	<b>SHIRE OF DALWALLINU</b>
Account Number	<b>5586 0290 5109 6758</b>
Payment Due Date	27 Oct 22
Minimum Payment	\$164.70
For details on how to make payments please see over	

**YOUR CARDHOLDER ACTIVITY SUMMARY**

Name	Account	Spending Limit	Purchases & Withdrawals	Interest & Other Charges	Payments & Other Credits
BILLING ACCOUNT	5586029051096758		\$0.00	\$0.00	\$10,285.22 CR
KNIGHT,JEAN M	5586025851159952	\$20,000.00	\$8,459.14	\$0.00	\$223.89 CR
<b>TOTAL</b>		<b>\$20,000.00</b>	<b>\$8,459.14</b>	<b>\$0.00</b>	<b>\$10,509.11 CR</b>

**YOUR INTEREST RATES**

Purchases	17.99% p.a.	Balance Transfers	17.99% p.a.	Cash Advances	17.99% p.a.
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**YOUR TRANSACTION SUMMARY**

Date	Description	Debit	Credit
15 SEP 22	DD16861.1		\$10,285.22
<b>Total</b>		<b>\$0.00</b>	<b>\$10,285.22 CR</b>

280BC3C 000105 000327





280BC3C 000105 (053N)

MRS JEAN MAREE KNIGHT  
SHIRE OF DALWALLINU  
PO BOX 141  
DALWALLINU WA 6609

Account Number 5586 0258 5115 9952

Period 9 Sep 22 - 7 Oct 22

Monthly Spend Limit \$20,000

SUMMARY OF YOUR SPEND

Purchases \$8,235.25  
Cash Advances & Balance Transfers \$0.00

YOUR TRANSACTION SUMMARY

Date	Description			Debit	Credit
21 SEP 22	AUSSIE BROADBAND LIMIT	MORWELL	AUS	\$79.00	
29 SEP 22	TENNIS WAREHOUSE	61394183934	VIC	\$278.90	
01 OCT 22	WESTNET	PERTH	WA	\$129.95	
02 OCT 22	CROWN METROPOL PERTH	BURSWOOD	AUS	\$756.38	
02 OCT 22	CROWN METROPOL PERTH	BURSWOOD	AUS	\$2,269.13	
02 OCT 22	CROWN PERTH	BURSWOOD	AUS	\$756.38	
02 OCT 22	CROWN PERTH	BURSWOOD	AUS	\$756.38	
02 OCT 22	CROWN TOWERS PERTH	BURSWOOD	AUS	\$1,450.22	
02 OCT 22	CROWN PERTH THE MERRYW	BURSWOOD		\$34.00	
02 OCT 22	CROWN PERTH THE MERRYW	BURSWOOD		\$22.00	
02 OCT 22	CROWN PERTH THE MERRYW	BURSWOOD		\$37.00	
04 OCT 22	WANEWSDTI	OSBORNE PARK	WA	\$28.00	
04 OCT 22	CROWN PERTH	BURSWOOD	AUS	\$35.10	
04 OCT 22	CROWN PERTH	BURSWOOD	AUS		\$223.89
04 OCT 22	CROWN PERTH THE MERRYW	BURSWOOD		\$295.00	
04 OCT 22	CROWN PERTH THE MERRYW	BURSWOOD		\$76.50	
04 OCT 22	CROWN PERTH THE MERRYW	BURSWOOD		\$72.00	
04 OCT 22	CROWN PERTH THE MERRYW	BURSWOOD		\$57.00	
05 OCT 22	OLA HELP.OLA.COM.AU	RIDE CHARGE	AUS	\$8.09	
05 OCT 22	CROWN METROPOL PERTH	BURSWOOD	AUS	\$89.76	
05 OCT 22	CROWN PERTH	BURSWOOD	AUS	\$1,228.35	
<b>Total</b>				<b>\$8,459.14</b>	<b>\$223.89 CR</b>

## 9.4 CHIEF EXECUTIVE OFFICER

### 9.4.1 WALGA Best Practice Governance Review\*

<b>Report Date</b>	22 November 2022
<b>Applicant</b>	WALGA
<b>File Ref</b>	GR/4 – Government Relations - WALGA
<b>Previous Meeting Reference</b>	Nil
<b>Prepared by</b>	Jean Knight, Chief Executive Officer
<b>Supervised by</b>	Jean Knight, Chief Executive Officer
<b>Disclosure of interest</b>	Nil
<b>Voting Requirements</b>	Simple Majority
<b>Attachments</b>	1. Background Paper 2. Consultation Paper

#### **Purpose of Report**

Council is requested to consider the consultation paper provided by WALGA for their Best Practice Governance Review and provide feedback.

#### **Background**

WALGA developed its Corporate Strategy 2020-25, and in doing so identified a key strategic priority to undertake a Best Practice Governance Review. The objective of the review is to ensure WALGA's governance and engagement is contemporary, agile and maximises engagement with members.

In March 2022, State Council commissioned the Best Practice Governance Review and established a Steering Committee to guide the review. A significant body of work, which is summarised in Attachment 1 (Background Paper) has been undertaken by this Steering Committee.

The Consultation Paper outlines:

**Principles:** The governance model principles and principle components across the domains of: *Representative, Responsive and Results Oriented*.

**Governance Model Options:** Present four potential governance model options and the structure and roles associated with each option

**Alignment to principles:** Each of these options are then assessed as to whether they align with the principles and their components. The assessment considers the option and whether it meets, partially meets or does not meet the principle component.

WALGA are now seeking Member feedback, in the form of a Council decision, on the governance model option as presented in Attachment 2 (Consultation Paper).

#### **Consultation**

Councillors were requested to provide feedback by Wednesday 9 November 2022. No comments were received.

#### **Legislative Implications**

Nil



**Policy Implications**

Nil

**Financial Implications**

Nil

**Strategic Implications**

Nil

**Site Inspection**

Site inspection undertaken: Not applicable

**Triple Bottom Line Assessment**

Economic implications

There are no known significant economic implications associated with this proposal.

Social implications

There are no known significant economic implications associated with this proposal.

Environmental implications

There are no known significant environmental implications associated with this proposal.
















**Officer Comment**

This review is an opportunity for Members to comment during the Best Practice Review to ensure WALGA is well represented.

The current governance structure for WALGA is as follows:



WALGA have provided five (5) options for Member Councils to consider. A description of each model can be found in Attachment 2.

Option 1 – Two tier model, existing Zones	Option 2 – Board, Regional Bodies	Option 3 – Board, Amalgamated Zones	Option 4 – Member elected Board, Regional Groups	Option 5 – Current Model
 Board (11 members) 8 elected from Policy Council, incl. Board elected President Up to 3 independents	 Board (11 members) 8 elected from Regional Bodies, incl. Board elected President Up to 3 independents	 Board (15 members) 12 elected from Zones, incl. Board elected President Up to 2 independents	 Board (11 members) 8 elected via direct election, incl. Board elected President Up to 3 independents	 State Council (25 members) 24 State Councillors 1 President
 Policy Council (25 members) 24 members plus President	 Regional Bodies (4 metro, 4 country)	 Zones (6 metro, 6 country)	 Policy Teams / Forums / Committees	 Zones (5 metro, 12 country)
 Zones (5 metro, 12 country)	 Policy Teams / Forums / Committees	 Policy Teams / Forums / Committees	 Regional Groups	 Policy Teams / Forums / Committees

### Option 1

Appears to be a large number of members (36) required for Board and Policy Council level. This model retains the current Zones.

### Option 2

Adequate number of Board members with the Regional Bodies for Country being Mining & Pastoral, Agricultural, Peel/South West/Great Southern, Regional Capitals.

### Option 3

Larger Board numbers than Option 2 with twelve (12) Zones of which Dalwallinu would fall into Wheatbelt North Zone.

### Option 4

Adequate number of Board members, no zones but Policy Teams/Forums/Committees with additional Regional Groups such as VROCs, Regional Capitals existing zones.

### Option 5

Not the optimal number of Board Members. There is no benefit in retaining a high number of Board Members.

In addition, there was discussion recently at a forum at the LGPro Annual Conference where questions were raised on keeping the Zone model as in effect unless a Council resolution has been passed beforehand, Councillors are representing their own views at the Zone meetings.

WALGA have requested that Councils endorse a preferred model and provide a ranking in terms of an order of preference.

Submissions to WALGA are sought by 23 December 2022. The Steering Committee will consider all submissions in January 2023 and will present the preferred model to State Council in March 2023.



### **Officer Recommendation**

That Council:

1. Advise WALGA that their preferred option is Option Two (Board, Regional Bodies);
2. Advise WALGA that the Options are ranked as follows:
  - a) Option Two
  - b) Option Three
  - c) Option Four
  - d) Option One
  - e) Option Five

#### **MOTION 10005**

Moved Cr KM McNeill  
Seconded Cr MM Harms

That Council suspend Standing Orders.

**CARRIED 8/0**

#### **MOTION 10006**

Moved Cr KJ Christian  
Seconded Cr JL Counsel

That Council resume Standing Orders.

**CARRIED 8/0**

#### **ALTERNATIVE MOTION 10007**

Moved Cr SC Carter  
Seconded Cr KM McNeill

That Council:

1. Advise WALGA that their preferred option is Option Five;
2. Advise WALGA that the Options are ranked as follows:
  - a) Option Five
  - b) Option One
  - c) Option Three
  - d) Option Two
  - e) Option Four

**CARRIED 8/0**

#### ***Reason for change to Recommendation:***

After due discussion Council felt that this ranking maintains the status quo.



# Best Practice Governance Review

## Background Paper

# Contents

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# Best Practice Governance Review

## 1. Background, Approach and Timeline



# Background and Approach

Background and approach that led to the development of the governance principles for the Best Practice Governance Review.

## Background

The Western Australian Local Government Association (WALGA) developed its Corporate Strategy 2020-25, and in doing so identified a key strategic priority, to undertake a Best Practice Governance Review. The objective of the review is to ensure WALGA's governance and engagement models are contemporary, agile, and maximise engagement with members. Other drivers for the review included:

- Misalignment between key governance documents; Constitution, Corporate Governance Charter, State Council Code of Conduct, and Standing Orders – stemming from varying amendments.
- State Council's 3 September 2021 resolution requesting amendment to the Constitution to "deal with matters related to State Councillors' Candidature for State and Federal elections".
- Proposed legislative reforms to remove WALGA from being constituted under the *Local Government Act 1995 (WA)*.
- Constitutional requirements for WALGA to become a registered organisation under the *Industrial Relations Act 1979 (WA)*, which would enable WALGA to make applications in its own right to the Western Australian Industrial Relations Commission

In March 2022 State Council commissioned the Best Practice Governance Review (BPGR) and established a Steering Committee to guide the Review.

The BPGR Steering Committee had its first meeting on 5 May 2022. There was wide-ranging discussion on WALGA's current governance model, the need to engage broadly with the membership, and opportunities for change. At the meeting, five comparator organisations were identified to be used in a governance model comparative analysis. Steering Committee meetings 2 to 5 had a focus on the development of governance model principles.

## This document

This document presents the key insights from the jurisdictional and comparator organisation analysis that supported the development of the governance principles. The final section presents the endorsed governance principles.

**Jurisdictional Analysis** – This section compares WALGA to equivalent jurisdictional associations (e.g. LGASA). This provides key insights into the size and election processes of WALGA compared to equivalent associations.

**Comparator Organisations** – This section compares WALGA's governance arrangements to five comparator organisations that were agreed at the BPGR Steering Committee meeting 1. This provides key insights into the size, election processes and recent governance changes of these five comparator organisations.

**Governance Model Principles** – The governance model principles were developed through BPGR Steering Committee meetings 2 to 5. This provides a structure for understanding how the current governance model of WALGA and any future governance model aligns to these principles.

The following slide outlines the timeline of key events and meetings that formed part of the BPGR.



# Timeline

Timeline of key events with a focus on the BPGR Steering Committee meetings throughout May to August 2022

## WALGA Corporate Strategy 2020-25

In 2019, a five-year Corporate Strategy was developed and identified that a governance model was key to delivery of the strategy. 19 interviews and 2 workshops covering 20 Local and State Government leaders informed the strategy.

## Stakeholder Engagement Project, GRA Partners, 2021

45 responses received from Federal and State Government and Opposition.

## WALGA Stakeholder Engagement Project, Marketforce 2021

105 survey responses and 42 interviews were facilitated across 95 Local Governments.

## State Council Performance Assessment, 2020

17 survey responses and comments received from State Councillors.

## Commissioning of Best Practice Governance Review

In March 2022, WALGA commissioned PwC to support the BPGR Project.

## First BPGR Steering Committee meeting held

On 22 May 2022, the first meeting of the BPGR Steering Committee identified five comparator organisations for the Review.

## Third BPGR Steering Committee meeting held

On 28 June 2022, an options paper was reviewed.

## Second BPGR Steering Committee meeting held

On 8 June 2022, the initial draft of comparator organisations was presented and assessment criteria was identified.

## Fourth BPGR Steering Committee meeting held

On 18 July 2022, core principles were decided to guide the BPGR.

## Fifth BPGR Steering Committee meeting held

On 10 August 2022, core principles for the BPGR were finalised.

## State Council updated

On 3 August 2022, an update on the BPGR was provided to State Council.

## Principles shared

In September 2022 agreement on the next steps for sharing the principles with Local Government members.

## 2019 Governance Review

A governance review was undertaken in 2019 that led to numerous process changes.



# Best Practice Governance Review

## 2. Jurisdictional Analysis

# Analysis: Jurisdictional equivalents to WALGA

Jurisdictional equivalents of WALGA have been analysed according to their size and election methods.

## Background

Prior to the BPGR Project commencing in March 2022, work was undertaken to understand governance arrangements in other jurisdictions. The focus of this work was on associations from other Australian states, as well as New Zealand.

The full list of associations are:

- Local Government NSW (LGNSW)
- Municipal Association Victoria (MAV)
- Local Government Association of Tasmania (LGAT)
- Local Government Association of South Australia (LGASA)
- Local Government Association of Queensland (LGAQ)
- Local Government Association of Northern Territory (LGANT)
- Local Government Association of New Zealand (LGNZ)

The assessment of these associations focused on providing insights into the following domains:

- **Size of Board:** How many board members are there in comparison to the 25 WALGA board members?
- **Method of Election of President:** How is the President elected to the board?
- **Method of Election of Board Members:** How are board members elected?

## Key Insights

Key insights following the comparison of WALGA to equivalent associations are outlined below:

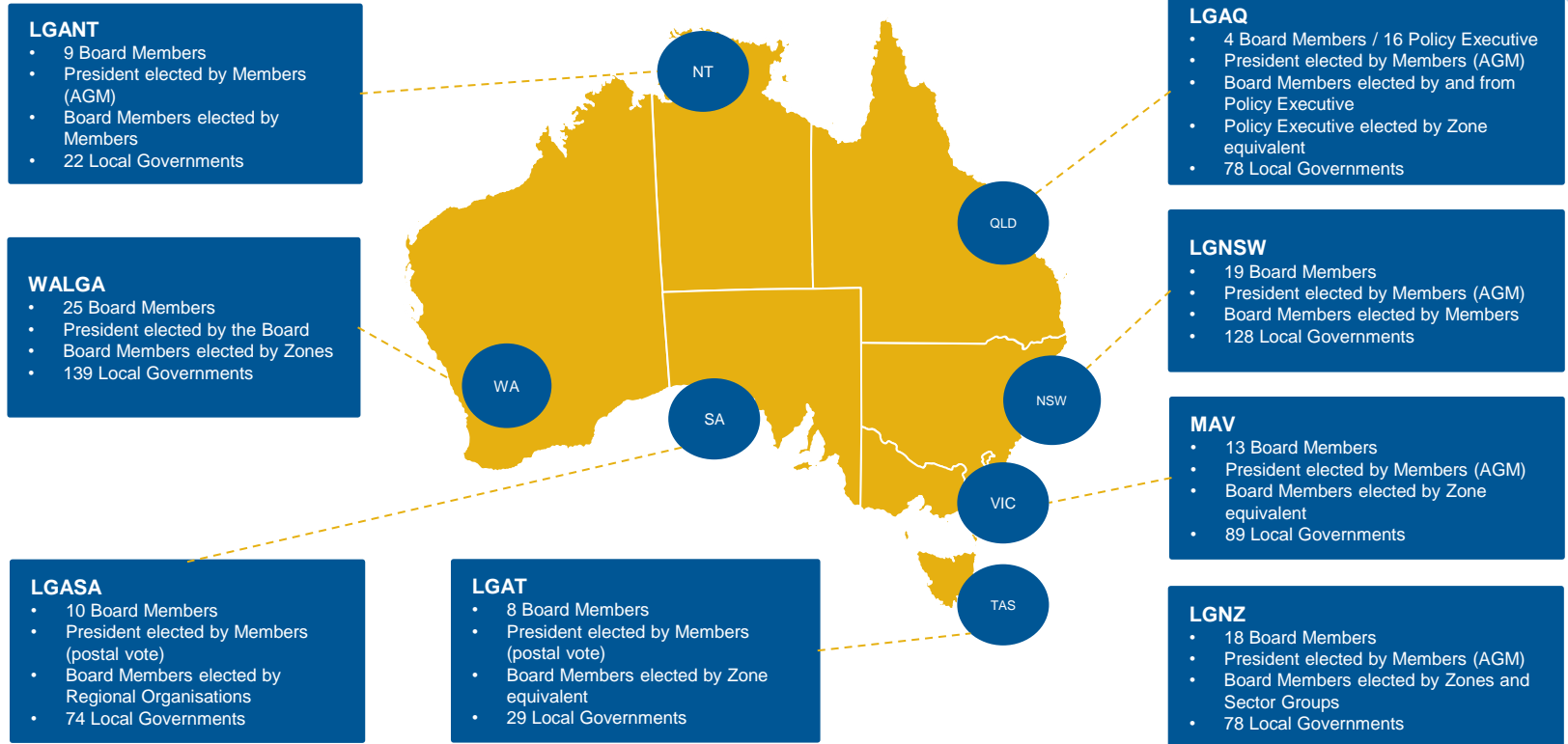
- **Size of Board** – while WALGA's board (State Council) contains the largest number of representatives, it can be seen that boards of Local Government Associations tend to be relatively large. The average board size (using Queensland's policy executive, not board) is 15.4.
- **Method of Election of President** – WALGA is an outlier: all other Presidents are elected directly by the membership. Perhaps this is a reflection of the prevalence of Council elected Mayors and Presidents in WA.
- **Method of Election of Board Members** – The majority of associations use regional groupings (equivalent to our Zones) to elect board members. The New Zealand hybrid model of electing representatives from geographic zones and sector groups (metro, provincial, rural, regional) is of interest.

The following slide presents this information for each of the seven associations.



# Summary: Jurisdictional equivalents to WALGA

Summary of jurisdictional analysis of WALGA equivalents in relation to their Board membership, election methods and number of Local Governments.



# Best Practice Governance Review

## 3. Comparator Organisations

# Comparator organisations

Comparison of WALGA's governance model to the governance models of five comparator organisations.

## Background

The BPGR Steering Committee had its first meeting on the 5 May 2022. There was wide-ranging discussion on WALGA's current governance model, the need to engage broadly with the membership, and opportunities for change.

At the meeting, five comparator organisations were identified to be used in a governance model comparative analysis. The organisations were selected on the basis of their similarity to WALGA as WA member-based peak industry organisations.

The selected organisations were: Australian Medical Association (AMA) WA, Chamber of Commerce and Industry (CCI) WA, Chamber of Minerals and Energy (CME), Australian Hotels Association (AHA) WA and Pharmacy Guild (PG) WA Branch.

## Process

WALGA supplied a range of background documents to assist in undertaking the initial desktop comparison. This included the Constitution, Corporate Governance Charter, Corporate Strategy 2020-2025, Standing Orders, Elected Member Prospectus, Flow Chart – WALGA Zone and State Council Process, Final Report – State Councils and Zone Structure and Process Working Group.

The documentation used for the comparator organisations were typically the:

- Constitution – which serves as the instrument for establishment of the association;
- Annual reports – which contains information about an association's performance over a 12-month period; and
- Organisational website – which may outline the structure and current composition of the board, council and the leadership team of the organisations.

Interviews were successfully arranged with three of the five organisations. They were AMA WA, CCI WA and CME WA. The document analysis and interviews provided insights into the size, election methods and recent changes within these organisations.

## Key insights

Key insights through the comparison of WALGA to the five comparator organisations are outlined below:

- **Size of Board** – WALGA's board (State Council) was larger than all other comparator organisation's boards.
- **Election methods** – election methods varied across the comparator organisations but many involved election through the membership.
- **Change** – three of the five organisations had recently undergone changes or reviews of their governance structures. There were a range of drivers for this change including: to increase the decision making ability of the board; to use specific working groups to focus on specific topics of interest and to increase representativeness of specific groups (e.g. Aboriginal and Torres Strait Islanders).

The following slide presents summary information on the size and election methods of the five comparator organisations. This is then followed by more detailed background into each organisation, their governance structure and any outcomes from conversations with these organisations.



# Summary: Governance structure analysis

WALGA's governance structure was analysed in comparison to five comparator organisations

Organisational Comparisons	Number of Board Members	President Elected by	Board Members elected by
<b>WA Local Government Association (WALGA)</b>	25	The Board	Zones
<b>Australian Medical Association (AMA)</b>	9	AMA WA Members	Members of the Association
<b>Chamber of Commerce and Industry WA (CCIWA)</b>	7 to 10	The Board	<ul style="list-style-type: none"> <li>• Up to 12 elected by Members</li> <li>• Up to 8 appointed by the Board</li> <li>• Up to 8 appointed by the Council</li> </ul>
<b>Chamber of Minerals and Energy (CME)</b>	6 to 11	Ordinary Members	Executive Councillors
<b>Australian Hotels Association (AHA) WA</b>	17	The Branch Committee of Management	The Branch Committee of Management
<b>Pharmacy Guild (PG) – WA branch</b>	16 to 22	The Branch	Financial Members from the same region as the Branch

*Note: The Council, Branch, or Board chosen from the organisations above were chosen for how appropriate their structure is as a comparison to the WALGA State Council.*





# Organisational Analysis: Australian Medical Association (AMA) WA

With over 5,000 members, the AMA (WA) is the largest independent professional organisation for medical practitioners and medical students in the State. Total revenue and other income for AMA nationally in 2020 was reported as \$21,928,000.

## Organisational Information

The AMA (WA) Board was created in 2017 and is comprised of the President, Immediate Past President, two Vice Presidents and five members of Council who are elected to sit on the Board (9 in total).

The AMA (WA) Council consists of four office bearers (President, Immediate Past President, two Vice Presidents). Additionally, there are the Specialty Group Representatives (e.g. General practice, surgery); Practice Group Representatives (e.g. rural doctors, public hospital doctors); Ordinary Council Members; and, Co-opted Council Members. Majority of the representatives and members represent their speciality (e.g. anaesthetics) or group of representative (e.g. medical student society).

The AMA Federal Council meets quarterly and is the AMA's main policy-making body. It is a forum to identify and debate emerging issues of relevance to the membership. The Federal Council's primary role is to: Form the policy of the AMA; Propose changes to existing policy; and Elect representatives to roles and committees. There is one State and one Area nominee from WA on the Federal Council.

The Leadership team consists of seven staff. CEO, CFO, COO, General Manager Training and Recruitment, Operations Manager, General Manager Financial Services and an HR manager.

## Governance Structure\*

The Board comprises of approximately 9 members.

The Board may increase or decrease the number of Advisory Council members as needed. However, it currently has 4 members.

The Board and Council is also supported by Specialty Group Representatives, Practice Group Representatives, Ordinary Council Members, and Co-Opted Council Members.

The Board focuses on governance, managing the Association's conduct and business, and ensuring conformity with the constitution.

The General Council focuses on advocacy, policy making, and representation of the association.

## Outcomes of Organisation Discussion

- **Governance Review:** The 2020 annual report mentions that an organisation-wide review was undertaken with the transformation in the process of being implemented until March 2020 (COVID).
- **Representation:** It is more important to restrict the number of Board members than Councillors. Board members are involved in making policy and governance decisions, requiring a greater decision-making capability; Councillors are more involved in stakeholder engagement and solving specific issues through working groups, therefore Council size has less impact to efficiency and effectiveness of the model.
- **Engagement:** The president is the spokesperson when it comes to policy issues. Councillors represent the views of Specialty Groups, Practice Groups, and the medical profession as a whole.
- **Feedback on the current model:** Board members have previously taken the role because they are passionate, but do not necessarily have the right expertise, resulting in poor governance. Board members who have leadership and governance experience have proven to be effective in the updated model. The Board would benefit from an independent audit partner and increased diversity in speciality, a simplified purpose of the Board and Council Advisory, and a reduced number of meetings each year.

*\*The AMA WA Constitution does not specify the number of Board or Council members. Member numbers are indicative and have been taken from the current Board & Council.*



# Organisational Analysis: Chamber of Commerce and Industry (CCI) WA

CCIWA is a not-for-profit member organisation providing information, professional services and support for businesses in Western Australia, with over 2,000 WA members. Total revenue and other income for 2021 was reported as \$34,270,130.

## Organisational Information

The CCIWA operates as a company limited by guarantee. This came into effect on 11 January 2019. The change in status means that CCIWA is now incorporated under the *Corporations Act 2001* (Cth) rather than the State legislation covering incorporated associations.

Based on the constitution, the number of board members can be between 9-12 (including President & Vice President). The current board has only 6 members including the President and Vice President.

There is a General Council. The constitution states that Councillors can be up to certain numbers depending on who they were elected by. The resulting effect is a council that does not have consistent numbers of members and does not need to fill all positions. This is unlike WALGA's governance model where representatives are elected by zones.

The Board is responsible for the sound governance of the organisation, whereas the General Council provides input to the organisations policy; provides advice to the Board; acts as a point of interface; elects and appoints Council Elected Directors; and passes resolutions relating to specific handling of assets and raising and borrowing funds.

## Governance Structure

The Board comprises of 9 – 12 members.

The Board focuses on strategic priorities, financial performance and compliance issues.

The General Council consists of up to 28 Councillors.

The General Council focuses on developing and being spokespersons on public policy frameworks and positions.

The governance structure is supported by bespoke working groups, formed from Councillors as relevant for specific strategic and policy issues.

## Outcomes of Organisation Discussion

- **Governance Review:** CCIWA conducted a review of their 2018 Constitution, resulting in changes contained in the 2021 Constitution, including: The governance model was revised to increase the decision-making capability of the board; The structure of the General Council was determined to be too generic causing low Councillor attendance. After the review, Councillors were split into bespoke working groups for specific policy issues for the upcoming 12-month period. This resulted in higher councillor attendance, than the previous governance model.
- **Representation:** In the new revision of the constitution, two new types of Councillors were included to increase representation for their respective groups. Future Leader Councillors, from members of University business schools; and First Nations Business Councillors, elected from First Nations Members.
- **Feedback on the current model:** In the current governance model, when a board member leaves, a temporary team member is appointed since board members can only be elected in general meetings.

# Organisational Analysis: The Chamber of Minerals and Energy (CME) WA

CME WA is the peak resources sector representative body in Western Australia whose member companies generate 95% of all mineral and energy production and employ 80% of the sector's workforce in the State.

## Organisational Information

The Corporate Governance Charter (Charter) provides guidance on the respective roles, responsibilities and authorities of members of the Executive Council (Executive Councillors) and members of the Advisory Board (Advisory Board Members) in setting the direction, management and control.

The number of Vice Presidents is determined by the Executive Council, the constitution contains no limit on the number of Vice Presidents and so the number of Vice Presidents is excluded from the diagram to the right.

Executive Councillors are elected by Ordinary Members, and there can be no less than 10.

The Role of the Advisory Board is to act as a traditional board providing strategic oversight on behalf of the Chamber. Key interface with the Executive Management Team on organisational matters, including strategy, operating accounts, governance and risk.

## Governance Structure

Advisory Board comprises of 5-10 members.

The Advisory Board provides strategic oversight and acts as the key interface with the Executive Management team on strategy, operating accounts, governance and risk.

Executive Council (10+ members).

The Executive Council most senior interface to guide and prioritise the agenda of the Chamber and its respective committees and holds final decision-making authority re: annual financial reports/statements.

The governance structure is supported by committees including bespoke working groups, appointed by Executive Council as relevant for specific strategic and policy issues.

## Outcomes of Organisation Discussion

- **Governance Review:** CME recently engaged in a governance review. In April 2020, CME put in place a governance charter. This codified processes and structures, clarified lines of accountability and included a director's code of conduct.
- **Representation:** Members who express an interest, get a seat at the table for the Executive Council. There are approximately 60 ordinary members with 16-20 regularly attending council meetings. This group is intended to provide a litmus check that the broader membership needs are being met.
- **Engagement:** Although the board is strongly engaged in the work and responsibilities it holds, there is the varying engagement of the executive council – this is broadly because due to the large array of issues it covers – the organisation would love to see stronger engagement in this area.
- **Feedback on the current model:** Based on the age of the organisation, the current pyramid structure works. This is successful largely due to the governance charter which provides clarity in role and structure for the organisation.

# Organisational Analysis: Australian Hotels Association (WA)

The Australian Hotels Association (AHA) represents more than 5,000 members across Australia serviced by a network of branches based in every state and territory, plus a Canberra-based National Office. Total revenue and other income for AMA nationally in 2020 was reported as \$2,257,963.

## Organisational Information

AHA was founded in 1892 and now represents more than 80% of the Western Australian hotel and hospitality industry.

The organisation has a branch in each state and territory, including a division in each branch known as the National Accommodation Hotels Division. The organisation and each of its branches have their own set of rules by which they are governed. However, ultimate authority is deferred to the National Board of the organisation.

All issues and opportunities are addressed by The Branch Committee of Management (The Branch). Consisting of six ordinary members, elected by members of the branch, and the president from each of the Territorial and Non-Territorial Divisions of the Branch. This includes a President, Senior Vice President, Vice President, Treasurer, Accommodation President and Country Representative. The President, Senior Vice President (SVP) and Vice President (VP) are elected by The Branch.

AHA developed a subsidiary known as 'Tourism Accommodation Australia (TAA)'. TAA publicly represents and lobbies specifically for accommodation hotels separately from the AHA's general hospitality members. However, membership to both AHA and TAA is granted to accommodation properties. There are 11 Divisional Presidents – 7 represent different Areas/Regions and 4 represent different membership groups.

## Governance Structure\*

Branch Committee of Management has 6 Ordinary members & the president of each Territory/Non-Territory Division (11).

Focuses on staff remuneration/conditions, branch transactions, disbursements, funds and resolves delegated Commonwealth industrial disputes.

There is no council or other governing entity to provide support to the Branch Committee of Management.

## Relevance to WALGA BPR

AHA was contacted to schedule an interview; however, there was no response following multiple requests. The following insights have been made by research on their publicly available governance information and documentation.

- **Composition:** Similar to WALGA's State Council, the AHA Governance structure only has one governing entity, The Branch Committee of Management. The number of branch members (17) is smaller than WALGA (25).
- **Responsibilities:** The AHA Branch Committee of Management is responsible for financial activities; however, the Rules document does not mention that they are responsible for activities that other comparator organisations governing entities are, such as policy creation or ensuring compliance.
- **Lack of compliance with constitution:** The Rules of the AHA WA Branch document acts as the Association's constitution. However, there are many conflicts between the governance structure in the Branch Rules document, and the governance structure depicted on AHA WA's website. For example, in the document the supreme governing body of the Branch is the Branch Committee of Management, whereas on the website it is the Executive Management team. Additionally, there is no mention of a board in the Rules document, but there is a Board of Management on the website.

\*The governance structure has been taken from the Rules of the AHA WA Branch document instead of the current governance structure depicted on the website, due to conflicting information.

# Organisational Analysis: Pharmacy Guild (WA Branch Focus)

Pharmacy Guild supports over 5,800 pharmacies across Australia. It is broken up into Territory Branches with more than 600 pharmacies as members in WA (est. 2017).

## Organisational Information

The Pharmacy Guild's WA Branch's Annual Report can only be viewed by Members of the Organisation.

The Branch consists of the Branch Executive, and the Branch Committee. Where the Branch Executive consists of the Branch President, Branch Vice President(s) and the National Councillor(s). Additionally, in the Branch Executive, the position of Branch President and Vice President can also be held by a National Councillor, resulting in different numbers of Branch Executives between states.

The National council has the power to determine and direct policy, settle disputes, control the national fund, appoint an auditor and other activities relating to being the supreme governing entity.

The constitution does not specify who exactly elects the Branch President, or the Branch Vice Presidents, only that they are elected from the Branch. Whereas Branch Committee Members are elected by financial members in that region.

The Branch and the National Council shall appoint their own auditor. Resulting in potential conflicts of interest, as hypothetically the Branch and the National Council can appoint an auditor who audits in their favour.

## Governance Structure\*

Branch Executive consists of 2 – 6 Executive Members.

All powers and functions of the Branch Committee between meetings of the Branch Committee.

Branch Committee consists of 7 - 14 committee members (excluding the Branch executive).

Control the Branch fund, decide the agenda for and attend special meetings.

There is only one governing entity in WA for Pharmacy Guild, however the WA Branch consists of National Councillors, from the National Council which is the supreme governing body for the Pharmacy Guild. However, the Branch Committee can create subcommittees to carry out particular functions.

## Relevance to WALGA BPGR

Pharmacy Guild WA was contacted to schedule an interview; however, they responded that they do not have time to discuss their governance model. The following insights have been made by research on their publicly available governance information and documentation.

- **Representation:** The interests of members are represented by the Branch Committee Members who are elected by the financial members of the same regions. Additionally, the interests of the National Council are represented in Branches by the National Councillors appointed in each Branch.
- **Composition:** The governance structure of the Branches of the Pharmacy Guild is adaptable to the needs of the Branch. Since the Branch Committee members can decide the number of Committee members needed in their branch, they can do so based on the needs of the Branch at any point in time, making the composition and size of the Branch adaptable to emerging needs. Also, the creation of additional branches and amalgamations of current branches is up to the decision of the National Council, enabling the National Council to alter the composition of the governance model nation-wide as needed. Branches can also create subcommittees as needed.

\*Since the number of members in governance entities is mentioned in the Constitution, the numbers have been estimated based on the current membership as per the Guild's website.

# Best Practice Governance Review

## 4. Governance Principles

# Development of Governance Principles

BPGR Steering Committee (SC) meetings and how they lead to the development of the proposed governance principles.

## BPGR Steering Committee meetings

The BPGR Steering Committee (SC) was established by State Council to guide the review. SC Meetings 2 through to 5 acted as key inputs into the development of the Governance Model principles. The focus of SC Meetings two through to five led to the development of the governance principles.

**SC Meeting 2** - On 8 June 2022, the initial draft of the comparator organisations and their governance structures was presented. The SC identified four assessment criteria for the purposes of assessing potential governance models. The assessment criteria were: (1) representation, (2) efficiency, (3) contemporary, and (4) sustainable. An Options Paper was then developed, using the assessment criteria against two governance model options.

**SC Meeting 3** - On 28 June 2022, a discussion of the DRAFT Options Paper took place. The SC decided that a workshop was required to take a step back and develop the core governance principles (rather than assessment criteria) that needed to underpin any future governance model for WALGA.

**SC Meeting 4** - On 18 July 2022, the SC discussed the principles and identified four principles that should guide WALGA's governance. They were Representative, Responsive, Results Oriented and Renewal. Renewal was the principle that some SC members deemed as optional and is not included as a separate principle. Some elements of renewal are incorporated into the other three principles.

**SC Meeting 5** - On 10 August 2022, the SC discussed and finalised the proposed principles. Discussion focused on the principle components and their likely governance implications. Several activities also occurred around this SC meeting. This include an update to State Council at the Information Forum on 3 August 2022, finalisation of principles on 17 August 2022 to inform AGM Item and finalisation of Agenda Item for 2022 AGM, including approval by State Council.

## Key outcomes

The SC agreed on the proposed governance model principles, their component parts and the implications of these principles. Specifically:

- **Principle definition** – the definition of each of the three principles.
- **Principle component** – the key component parts of each principle.
- **Principle component description** – a description of each principle component.
- **Governance implications** – the governance implications of each of the principle components.

The following slide presents the principles, their components and a description and their governance implications.



# Endorsed Governance Principles

The principles for assessing WALGA's governance model options and governance implications

Representative

Responsive

Results Oriented

Principle	Principle component	Component description	Governance implications
WALGA unites and represents the entire local government sector in WA and understands the diverse nature and needs of members, regional communities and economies.	Composition	The composition of WALGA's governance model represents Local Government members from metropolitan and country councils.	The governing body will maintain equal country and metropolitan local government representation.
	Size	An appropriate number of members/representatives oversees WALGA's governance.	Potential reduction in the size of the overarching governing body.
	Diversity	WALGA's governance reflects the diversity and experience of its Local Government members.	Potential for the introduction of a mechanism to ensure the governance model comprises an appropriate diversity of skills and experience.
	Election Process	Considers the processes by which WALGA's governance positions are elected and appointed.	Consideration of alternative election and appointment arrangements, with the President to be elected by and from the governing body.
WALGA is an agile association which acts quickly to respond to the needs of Local Government members and stakeholders.	Timely Decision Making	WALGA's governance supports timely decision making.	WALGA's governance model facilitates responsive decision making.
	Engaged Decision Making	WALGA's Local Government members are engaged in decision making processes.	WALGA's governance model facilitates clear and accessible processes for Local Government members to influence policy and advocacy with consideration to alternatives to the existing zone structure.
	Agility	Considers the flexibility of WALGA's governance to adapt to changing circumstances.	WALGA's governance model is agile and future proofed for external changes.
WALGA dedicates resources and efforts to secure the best outcomes for Local Government members and supports the delivery of high-quality projects, programs and services.	Focus	Considers the clarity and separation of responsibilities and accountabilities of WALGA's governance.	Governance bodies have clearly defined responsibilities and accountabilities, with the capacity to prioritise and focus on strategic issues.
	Value Added Decision Making	Facilitates opportunities for value to be added to decision making.	Adoption of best practice board processes, and introduction of governance structures that are empowered to inform decisions.
	Continuous Improvement	Considers regular review processes for components of the governance model, their purpose and achieved outcomes.	WALGA's governance is regularly reviewed every 3 to 5 years to ensure the best outcomes are achieved for Local Government members.



# Thank you

For more information, visit our [website](#) or contact Tim Lane, Manager Association and Corporate Governance, at [tlane@walga.asn.au](mailto:tlane@walga.asn.au) or 9213 2029.

# Best Practice Governance Review

## Consultation Paper – Model Options

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# Best Practice Governance Review

## 1. Introduction

# Introduction

## Background

The Western Australian Local Government Association (WALGA) developed its Corporate Strategy 2020-25, and in doing so identified a key strategic priority, to undertake a Best Practice Governance Review. The objective of the review is to ensure WALGA's governance and engagement models are contemporary, agile, and maximise engagement with members.

Other drivers for the review included: misalignment between key governance documents; constitution amendments for State Councillors' Candidature for State and Federal elections; and legislative reforms for the *Local Government Act 1995*, and for the *Industrial Relations Act 1979*.

In March 2022, State Council commissioned the Best Practice Governance Review (BPGR) and established a Steering Committee to guide the Review.

The BPGR Steering Committee had five meetings between 5 May 2022 and 10 August 2022. There was wide-ranging discussion on WALGA's current governance model, the need to engage broadly with the membership, and opportunities for change. Key outputs from the BPGR Steering Committee meetings included:

- Agreement on five comparator organisations – Australian Medical Association (AMA) WA, Chamber of Commerce and Industry (CCI) WA, Chamber of Minerals and Energy (CME), Australian Hotels Association (AHA) WA and the Pharmacy Guild (PG).
- Review of governance models of Local Government Associations in other Australian States and Territories, and New Zealand.
- Drafting of governance principles that will underpin future governance models.
- Finalisation of governance principles and principle components across the domains of: **Representative, Responsive and Results Oriented**.

These activities are outlined in more detail in the Background Paper.

## This document

This document outlines:

**Principles:** The governance model principles and principle components across the domains of: Representative, Responsive and Results Oriented. The principles were endorsed at the WALGA AGM on 3 October 2022.

**Governance model options:** Presents four potential governance model options and the structure and roles associated with each option. The four options are:

- **Option 1:** Two tier model, existing zones
- **Option 2:** Board, regional bodies
- **Option 3:** Board, amalgamated zones
- **Option 4:** Member elected board, regional groups
- **Option 5:** Current model

**Alignment to principles:** Each of these options are then assessed as to whether they align with the principles and their components. The assessment considers the option and whether it meets, partially meets or does not meet the principle component. Alongside this assessment are some discussion points. An example of this relates to diversity.

Diversity is a component of the governance model being representative. Diversity here may include consideration of whether the governance model comprises an appropriate diversity of skills and experience. It also provides opportunity to consider whether the governance model provides opportunity for members of diverse backgrounds e.g. people of Aboriginal and Torres Strait Islander descent, people with Culturally and Linguistically Diverse backgrounds.

Within all the model options, direct relationship with WALGA and regional / subregional collaboration would continue to be encouraged.



# Best Practice Governance Review

## 2. Governance Principles

# Governance Principles

The following Governance Principles were endorsed by members at the 2022 AGM

Representative

Responsive

Results Oriented

Principle	Principle component	Component description	Governance implications
WALGA unites and represents the entire local government sector in WA and understands the diverse nature and needs of members, regional communities and economies.	Composition	The composition of WALGA's governance model represents Local Government members from metropolitan and country councils.	The governing body will maintain equal country and metropolitan local government representation.
	Size	An appropriate number of members/representatives oversees WALGA's governance.	Potential reduction in the size of the overarching governing body.
	Diversity	WALGA's governance reflects the diversity and experience of its Local Government members.	Potential for the introduction of a mechanism to ensure the governance model comprises an appropriate diversity of skills and experience.
	Election Process	Considers the processes by which WALGA's governance positions are elected and appointed.	Consideration of alternative election and appointment arrangements, with the President to be elected by and from the governing body.
WALGA is an agile association which acts quickly to respond to the needs of Local Government members and stakeholders.	Timely Decision Making	WALGA's governance supports timely decision making.	WALGA's governance model facilitates responsive decision making.
	Engaged Decision Making	WALGA's Local Government members are engaged in decision making processes.	WALGA's governance model facilitates clear and accessible processes for Local Government members to influence policy and advocacy with consideration to alternatives to the existing zone structure.
	Agility	Considers the flexibility of WALGA's governance to adapt to changing circumstances.	WALGA's governance model is agile and future proofed for external changes.
WALGA dedicates resources and efforts to secure the best outcomes for Local Government members and supports the delivery of high-quality projects, programs and services.	Focus	Considers the clarity and separation of responsibilities and accountabilities of WALGA's governance.	Governance bodies have clearly defined responsibilities and accountabilities, with the capacity to prioritise and focus on strategic issues.
	Value Added Decision Making	Facilitates opportunities for value to be added to decision making.	Adoption of best practice board processes, and introduction of governance structures that are empowered to inform decisions.
	Continuous Improvement	Considers regular review processes for components of the governance model, their purpose and achieved outcomes.	WALGA's governance is regularly reviewed every 3 to 5 years to ensure the best outcomes are achieved for Local Government members.
















# Best Practice Governance Review

## 3. Options and Current Model



# Options and Current Model




Five options, including the Current Model, with details of each of their key governance bodies

Option 1 – Two tier model, existing Zones	Option 2 – Board, Regional Bodies	Option 3 – Board, Amalgamated Zones	Option 4 – Member elected Board, Regional Groups	Option 5 – Current Model
 <p><b>Board</b> (11 members) 8 elected from Policy Council, incl. Board elected President Up to 3 independents</p>	 <p><b>Board</b> (11 members) 8 elected from Regional Bodies, incl. Board elected President Up to 3 independents</p>	 <p><b>Board</b> (15 members) 12 elected from Zones, incl. Board elected President Up to 2 independents</p>	 <p><b>Board</b> (11 members) 8 elected via direct election, incl. Board elected President Up to 3 independents</p>	 <p><b>State Council</b> (25 members) 24 State Councillors 1 President</p>
 <p><b>Policy Council</b> (25 members) 24 members plus President</p>	 <p><b>Regional Bodies</b> (4 metro, 4 country)</p>	 <p><b>Zones</b> (6 metro, 6 country)</p>	 <p><b>Policy Teams / Forums / Committees</b></p>	 <p><b>Zones</b> (5 metro, 12 country)</p>
 <p><b>Zones</b> (5 metro, 12 country)</p>	 <p><b>Policy Teams / Forums / Committees</b></p>	 <p><b>Policy Teams / Forums / Committees</b></p>	 <p><b>Regional Groups</b></p>	 <p><b>Policy Teams / Forums / Committees</b></p>



# Option 1 – Two Tier Model, Existing Zones




A description of the governance body structure and role for Option 1

Governance Body	Structure	Role
 <b>Board</b>	11 members: 8 representative members elected from and by the Policy Council (4 Metro, 4 Country). The Board then elect the President from the representative members. The Board will appoint up to 3 independent, skills or constituency directors.	Meet 6 times per year. Responsible for governance of WALGA including strategy, financial oversight, policy development and endorsement, advocacy priorities, employment of CEO, etc.
 <b>Policy Council</b>	24 members plus President. Members elected by and from the Zones (12 from 5 Metro Zones, 12 from 12 Country Zones).	Meet at least 2 times per year to contribute to policy positions and advocacy for input into Board, and to liaise with Zones on policy and advocacy. The Policy Council can form Policy Teams, Policy Forums and Committees, which would have responsibility for specific functions, such as policy development.
 <b>Zones</b>	5 Metro, 12 Country.	Meet at least 2 times per year to raise policy issues, elect representatives to the Policy Council, and undertake regional advocacy and projects as directed by the Zone.






# Option 2 – Board, Regional Bodies

A description of the governance body structure and role for Option 2

Governance Body	Structure	Role
 <b>Board</b>	11 members: 8 representative members elected from and by the Regional Bodies (4 Metro, 4 Country). The Board then elect the President from the representative members. The Board will appoint up to 3 independent, skills or constituency directors.	Meet 6 times per year responsible for governance of WALGA including strategy, financial oversight, policy development, advocacy priorities, employment of CEO, etc.
 <b>Regional Bodies</b>	Metro: North, South, East and Central. Country: Mining & Pastoral, Agricultural, Peel/South West/Great Southern, Regional Capitals. <i>Note: Local Governments can nominate their preferred regional body, with membership of the regional bodies to be determined by the board.</i>	Meet at least 2 times per year to contribute to policy development and advocacy, and to elect Board members (1 from each of the Metro Regional Bodies and 1 from each of the Country Regional Bodies).
 <b>Policy Teams / Forums / Committees</b>	Membership drawn from the Board and Regional Bodies with some independent members.	Responsible for specific functions – such as policy development – as determined by the Board.




# Option 3 – Board, Amalgamated Zones

A description of the governance body structure and role for Option 3

Governance Body	Structure	Role
 <b>Board</b>	15 members: 12 elected from the Zones (6 from Metro/Peel, 6 from Country). President to be elected by the Board. The Board will appoint up to 2 independent, skills or constituency directors.	Meet 6 times per year. Responsible for the governance of WALGA including strategy, financial oversight, policy development and endorsement, advocacy priorities, employment of CEO, etc.
 <b>Zones</b>	<p>Metro/Peel:</p> <ul style="list-style-type: none"><li>• Central Metropolitan</li><li>• East Metropolitan</li><li>• North Metropolitan</li><li>• South Metropolitan</li><li>• South East Metropolitan</li><li>• Peel</li></ul> <p>Country*:</p> <ul style="list-style-type: none"><li>• Wheatbelt South</li><li>• Wheatbelt North</li><li>• Mid West / Murchison / Gascoyne</li><li>• Pilbara / Kimberley</li><li>• South West / Great Southern</li><li>• Goldfields / Esperance</li></ul> <p><i>*indicative, re-drawing required</i></p>	Meet at least 2 times per year to contribute to policy development and advocacy, and to elect Board members.
 <b>Policy Teams / Forums / Committees</b>	Membership drawn from Board with some independent members.	Responsible for specific functions – such as policy development – as determined by the Board.




# Option 4 – Member Elected Board, Regional Groups

A description of the governance body structure and role for Option 4

Governance Body	Structure	Role
 <b>Board</b>	11 members: 8 representative members elected via direct election, with each member Local Government to vote (4 elected by and from Metropolitan Local Governments, 4 elected by and from Country Local Governments). President elected by the Board from among the representative members. The Board will appoint up to 3 independent, skills or constituency directors.	Meet 6 times per year and responsible for governance of WALGA including strategy, financial oversight, policy development and endorsement, advocacy priorities, employment of CEO, etc.
 <b>Policy Teams / Forums / Committees</b>	Membership drawn from Board with some independent members.	Meet at least 2 times per year. Responsible for specific functions – such as contributing to policy development – as determined by the Board.
 <b>Regional Groups</b>	Determined by members to suit needs. E.g. Regional Capitals, GAPP, VROCs, CEO Group, existing Zones.	Feed into policy development processes and undertake advocacy and projects as determined by the groups.

# Option 5 – Current Model

A description of the governance body structure and roles for the Current Model

Governance Body	Structure	Role
 <b>State Council</b>	24 members plus the President. Members elected by and from the Zones (12 from 5 Metropolitan Zones, 12 from 12 Country Zones).	Responsible for the governance of WALGA including strategy, financial oversight, policy development and endorsement, advocacy, employment of CEO, etc.
 <b>Zones</b>	5 Metro, 12 Country.	Consider the State Council Agenda, elect State Councillors, and undertake regional advocacy / projects as directed by the Zone.
 <b>Policy Teams / Forums / Committees</b>	Membership drawn from State Council with some independent members.	Responsible for specific functions – such as contributing to policy development, financial oversight etc. – as determined by State Council.






# Best Practice Governance Review

## 4. Alignment to Principles

# Option 1 – Two Tier Model, Existing Zones

Option 1 and its alignment to the principles

## Option 1 – Two tier model, existing Zones

	<b>Board</b> (11 members) 8 elected from Policy Council, incl. Board elected President Up to 3 independents
	<b>Policy Council</b> (25 members) 24 members plus President
	<b>Zones</b> (5 metro, 12 country)

	Principle & component	Principle alignment (Meets, partial, does not meet)	Discussion points
<b>Representative</b>	<b>Composition</b>	Meets	<ul style="list-style-type: none"> <li>Board will have equal metropolitan and country membership</li> </ul>
	<b>Size</b>	Meets	<ul style="list-style-type: none"> <li>Board is smaller</li> </ul>
	<b>Diversity</b>	Meets	<ul style="list-style-type: none"> <li>Consideration of appointment processes for independent members</li> </ul>
	<b>Election Process</b>	Meets	<ul style="list-style-type: none"> <li>Board to be elected from Policy Council</li> </ul>
<b>Responsive</b>	<b>Timely Decision Making</b>	Meets	<ul style="list-style-type: none"> <li>Meeting frequency aligned to governing body roles</li> </ul>
	<b>Engaged Decision Making</b>	Meets	<ul style="list-style-type: none"> <li>Board meetings are not dependent on other governing body meetings</li> </ul>
	<b>Agility</b>	Partial	<ul style="list-style-type: none"> <li>Board is future-proofed from external changes</li> <li>Zone structures still underpin Council</li> </ul>
	<b>Focus</b>	Partial	<ul style="list-style-type: none"> <li>Prioritisation and focus may be a challenge</li> </ul>
<b>Results Oriented</b>	<b>Value Added Decision Making</b>	Meets	<ul style="list-style-type: none"> <li>Best practice board approaches will be adopted</li> </ul>
	<b>Continuous Improvement</b>	Meets	<ul style="list-style-type: none"> <li>Board would be responsible for ongoing reviews of governance body roles in consultation with members</li> </ul>






# Option 2 – Board, Regional Bodies


Option 2 and its alignment to the principles

## Option 2 – Board, Regional Bodies




**Board**  
(11 members)  
8 elected from  
Regional Bodies, incl.  
Board elected  
President  
Up to 3 independents

---



**Regional  
Bodies**  
(4 metro,  
4 country)

---




**Policy Teams  
/ Forums /  
Committees**

	Principle & component	Principle alignment (Meets, partial, does not meet)	Discussion points
<b>Representative</b>	Composition	Meets	<ul style="list-style-type: none"> <li>Board will have equal metropolitan and country membership</li> <li>How to establish regional body membership is a consideration</li> </ul>
	Size	Partial	<ul style="list-style-type: none"> <li>Board is smaller</li> <li>Number of regional bodies is a consideration</li> </ul>
	Diversity	Meets	<ul style="list-style-type: none"> <li>Consideration of appointment processes for independent members</li> </ul>
	Election Process	Meets	<ul style="list-style-type: none"> <li>Board election from regional bodies</li> </ul>
<b>Responsive</b>	<b>Timely Decision Making</b>	Meets	<ul style="list-style-type: none"> <li>Meeting frequency aligned to governing body roles</li> </ul>
	<b>Engaged Decision Making</b>	Meets	<ul style="list-style-type: none"> <li>Board meetings are not dependent on regional body meetings</li> </ul>
	<b>Agility</b>	Meets	<ul style="list-style-type: none"> <li>Board and regional bodies are future proofed from external changes</li> </ul>
	<b>Focus</b>	Partial	<ul style="list-style-type: none"> <li>There may be challenges defining accountabilities and responsibilities of regional bodies</li> </ul>
<b>Results Oriented</b>	<b>Value Added Decision Making</b>	Meets	<ul style="list-style-type: none"> <li>Best practice board approaches will be adopted</li> </ul>
	<b>Continuous Improvement</b>	Meets	<ul style="list-style-type: none"> <li>Board will be responsible for ongoing reviews of governing body roles in consultation with members</li> </ul>


# Option 3 – Board, Amalgamated Zones

Option 3 and its alignment to the principles


## Option 3 – Board, Amalgamated Zones



**Board**  
(15 members)  
12 elected from Zones, incl. Board elected President  
Up to 2 independents



**Zones**  
(6 metro, 6 country)




**Policy Teams / Forums / Committees**

	Principle & component	Principle alignment (Meets, partial, does not meet)	Discussion points
<b>Representative</b>	<b>Composition</b>	Partial	<ul style="list-style-type: none"> <li>Board will have equal metropolitan and country membership</li> <li>There may be composition challenges for amalgamated zones</li> </ul>
	<b>Size</b>	Partial	<ul style="list-style-type: none"> <li>Board is smaller</li> <li>Amalgamation of zones to 12 in total</li> </ul>
	<b>Diversity</b>	Meets	<ul style="list-style-type: none"> <li>Consideration of appointment processes for independent members</li> </ul>
	<b>Election Process</b>	Meets	<ul style="list-style-type: none"> <li>Board election from zones</li> </ul>
<b>Responsive</b>	<b>Timely Decision Making</b>	Meets	<ul style="list-style-type: none"> <li>Meeting frequency aligned to governing body roles</li> </ul>
	<b>Engaged Decision Making</b>	Meets	<ul style="list-style-type: none"> <li>Board meetings are aligned to zone meetings</li> </ul>
	<b>Agility</b>	Meets	<ul style="list-style-type: none"> <li>Board is future proofed from external changes</li> </ul>
<b>Results Oriented</b>	<b>Focus</b>	Partial	<ul style="list-style-type: none"> <li>Prioritisation and focus may be a challenge</li> </ul>
	<b>Value Added Decision Making</b>	Meets	<ul style="list-style-type: none"> <li>Best practice board approaches will be adopted</li> </ul>
	<b>Continuous Improvement</b>	Meets	<ul style="list-style-type: none"> <li>The Board would be responsible for ongoing reviews of governance body roles in consultation with members</li> </ul>

# Option 4 – Member Elected Board, Regional Groups


Option 4 and its alignment to the principles

**Option 4 –  
Member elected Board,  
Regional Groups**




**Board**  
(11 members)  
8 elected via direct election, incl. Board elected President  
Up to 3 independents

---



**Policy Teams / Forums / Committees**

---




**Regional Groups**

Principle & component		Principle alignment (Meets, partial, does not meet)	Discussion points
<b>Representative</b>	<b>Composition</b>	Partial	<ul style="list-style-type: none"> <li>Board will have equal metropolitan and country membership</li> <li>Membership of regional groups dynamic and ad hoc</li> </ul>
	<b>Size</b>	Partial	<ul style="list-style-type: none"> <li>Board is smaller</li> </ul>
	<b>Diversity</b>	Meets	<ul style="list-style-type: none"> <li>Consideration of appointment processes for independent members</li> </ul>
	<b>Election Process</b>	Meets	<ul style="list-style-type: none"> <li>Board election from a general meeting</li> </ul>
<b>Responsive</b>	<b>Timely Decision Making</b>	Meets	<ul style="list-style-type: none"> <li>Meeting frequency aligned to governing body roles</li> </ul>
	<b>Engaged Decision Making</b>	Meets	<ul style="list-style-type: none"> <li>Board meetings are not dependent on policy teams / regional group meetings</li> </ul>
	<b>Agility</b>	Meets	<ul style="list-style-type: none"> <li>Board is future-proofed from external changes</li> </ul>
<b>Results Oriented</b>	<b>Focus</b>	Partial	<ul style="list-style-type: none"> <li>Policy teams / Regional Group meetings to influence priorities</li> </ul>
	<b>Value Added Decision Making</b>	Meets	<ul style="list-style-type: none"> <li>Best practice board approaches will be adopted</li> </ul>
	<b>Continuous Improvement</b>	Meets	<ul style="list-style-type: none"> <li>Board would be responsible for ongoing reviews of governing body roles in consultation with members</li> </ul>

# Option 5 – Current Model


Current model and its alignment to the principles

## Option 5 – Current Model




**State Council**  
(25 members)  
24 State Councillors  
1 President

---



**Zones**  
(5 metro,  
12 country)

---



**Policy Teams**  
/ Forums /  
Committees

Principle & component		Principle alignment (Meets, partial, does not meet)	Discussion points
<b>Representative</b>	Composition	Meets	<ul style="list-style-type: none"> <li>State Council has equal metropolitan and country membership</li> </ul>
	Size	Partial	<ul style="list-style-type: none"> <li>State Council will retain 25 members</li> </ul>
	Diversity	Partial	<ul style="list-style-type: none"> <li>No control of diversity of State Council</li> </ul>
	Election Process	Meets	<ul style="list-style-type: none"> <li>State Council election from zones</li> </ul>
<b>Responsive</b>	<b>Timely Decision Making</b>	Partial	<ul style="list-style-type: none"> <li>Meeting frequency aligned to governing body roles</li> </ul>
	<b>Engaged Decision Making</b>	Meets	<ul style="list-style-type: none"> <li>State Council meetings are aligned to zone meetings</li> </ul>
	<b>Agility</b>	Partial	<ul style="list-style-type: none"> <li>State Council is not future proofed from external changes</li> </ul>
	<b>Focus</b>	Partial	<ul style="list-style-type: none"> <li>Prioritisation and focus may remain a challenge</li> </ul>
<b>Results Oriented</b>	<b>Value Added Decision Making</b>	Partial	<ul style="list-style-type: none"> <li>Best practice board approaches will not be adopted</li> </ul>
	<b>Continuous Improvement</b>	Meets	<ul style="list-style-type: none"> <li>State Council would continue to be responsible for ongoing reviews of governance body roles in consultation with members</li> </ul>

# Best Practice Governance Review

## 5. Consultation Process and Next Steps

# WALGA Best Practice Governance Review

## Consultation Process and Next Steps

### Consultation Process

#### Council Position

Member Local Governments are asked to consider this paper and the governance model options put forward and provide a Council endorsed position to WALGA.

It is suggested that Councils endorse a preferred model (which could be the Current Model) and provide a ranking in terms of an order of preference.

Submissions to WALGA are sought by **23 December 2022**.

#### Supplementary Market Research

An independent market research company has been engaged to ascertain insights from Elected Members and Chief Executive Officers about WALGA's governance model. Qualitative interviews and a quantitative survey will be undertaken to supplement Council positions.

#### Workshops and Forums

Requests for presentations on the work undertaken by the Steering Committee and the model options, as well as facilitation of workshops and discussions will be accommodated where practicable.

### Next Steps

#### Timetable

- Consultation and engagement with Members on this paper and governance model options will be undertaken from October 2022 until 23 December 2022.
- The Steering Committee will consider the outcomes of the consultation process during January 2023.
- A Final Report with a recommended direction will be the subject of a State Council Agenda item for the March 2023 State Council meeting.



# Thank you

For more information, visit our [website](#) or contact Tim Lane, Manager Association and Corporate Governance, at [tlane@walga.asn.au](mailto:tlane@walga.asn.au) or 9213 2029.

## 9.4.2 Request to Change Shire Positioning Statement

<b>Report Date</b>	22 November 2022
<b>Applicant</b>	Kalannie CRC
<b>File Ref</b>	CU/6 – Customer Services - Requests
<b>Previous Meeting Reference</b>	Nil
<b>Prepared by</b>	Jean Knight, Chief Executive Officer
<b>Supervised by</b>	Jean Knight, Chief Executive Officer
<b>Disclosure of interest</b>	Nil
<b>Voting Requirements</b>	Simple Majority
<b>Attachments</b>	Nil

### Purpose of Report

Council is requested to consider a request from the Kalannie Community Resource Centre (KCRC) to change the Shire positioning statement from 'Place of Wheat and Wattle' to 'Place of Wheat, Wattle and Windmills'.

### Background

In 2019 Council undertook an exhaustive process of re-branding. This incorporated the formation of a Working Group with numerous workshops over an eight (8) month period.

### 'MOTION 9470

*Moved* Cr JA Huggett

*Seconded* Cr KM McNeill

*That Council endorse the proposed re-branding of the Shire of Dalwallinu as attached to this report.*

**CARRIED 8/0'**

The objective of the re-branding was to acquire a logo and positioning statement that presents a professional corporate image of the Shire that is distinct and recognisable.

The current positioning statement - '**Place of Wheat and Wattle**' was chosen as there are about eighty (80) different types of wattle that can be found within the Shire of Dalwallinu (see [worldwidewattle.com](http://worldwidewattle.com)) and in 2018-2019, 510,548 tonnes of wheat was delivered to Co-operative Bulk Handling from the three (3) bins that were receiving wheat in the Shire of Dalwallinu.

### Consultation

Nil

### Legislative Implications

Nil

### Policy Implications

Nil





### **Financial Implications**

Should Council support the change of name there would be expenses related to anywhere that the current statement is advertised (Road signs, tourism signs, corporate stationery, corporate uniforms etc).

### **Strategic Implications**

Nil

### **Site Inspection**

Site inspection undertaken: Not applicable

### **Triple Bottom Line Assessment**

#### Economic implications

There are no known significant economic implications associated with this proposal.

#### Social implications

There are no known significant economic implications associated with this proposal.

#### Environmental implications

There are no known significant environmental implications associated with this proposal.

### **Officer Comment**

At the workshop held 25 June 2019 the words below were associated with Dalwallinu:



The following positioning statements were also discussed:

- Bringing Opportunity Together
- Place of Opportunity
- Place of Wheat and Wattle
- The Place of Wheat and Wattle
- A Place for Everyone



Whilst we acknowledge that both in Dalwallinu and Kalannie we proudly display windmills, when it raised as an option to be incorporated into the re-branding, it was discussed that windmills were a thing of the past and we were looking forward. During the workshop it was also acknowledged that the Shire of Corrigin lay claim to being the Windmill Shire.

There are numerous positioning statements that could be used to promote Dalwallinu. The major 'W' word would be wildflowers however Council and the Working Group resolved to utilise 'wheat and wattle'.

It is the Officer's recommendation that Council retain the current positioning statement as it promotes what Dalwallinu is known for and the expense to change would be unwarranted.

#### **Officer Recommendation/Resolution**

##### **MOTION 10008**

Moved           Cr KM McNeill

Seconded       Cr KJ Christian

That Council thank the Kalannie Community Resource Centre for their suggestion, however will not be changing the Shire Positioning Statement from '*Place of Wheat and Wattle*' to '*Place of Wheat, Wattle and Windmills*'.

**CARRIED 8/0**



### 9.4.3 Use of Common Seal – Lot 43 McConnell Street, Pithara\*

<b>Report Date</b>	22 November 2022
<b>Applicant</b>	Shire of Dalwallinu
<b>File Ref</b>	A8942
<b>Previous Meeting Reference</b>	OCM – 23 August 2022 (M9951)
<b>Prepared by</b>	Jean Knight, Chief Executive Officer
<b>Supervised by</b>	Jean Knight, Chief Executive Officer
<b>Disclosure of interest</b>	Nil
<b>Voting Requirements</b>	Simple Majority
<b>Attachments</b>	Transfer of Land

#### **Purpose of Report**

Council is requested to authorise the signing and affixing of the Common Seal to the Transfer of Land (Sale for Rates) document for Lot 43 McConnell Street, Pithara.

#### **Background**

At the Ordinary Council Meeting held 16 April 2019, Council resolved to acquire two properties in Pithara (47 Leahy Street and 38 McConnell Street) due to non-payment of rates. Previous attempts to purchase the properties from the previous owners proved very difficult due to incomplete data so the best option was to acquire the properties and sell by public auction.

At the Ordinary Meeting of Council held 23 August 2022, Council resolved the following:

#### **MOTION 9951**

*Moved* Cr SC Carter  
*Seconded* Cr MM Mills

*That Council:*

- 1. Accepts the offer from Dalwallinu Concrete Pty Ltd of \$1,000 (inc GST) for Lot 43 (38) McConnell Street, Pithara, subject to both parties settlement fees being paid by Dalwallinu Concrete;*
- 2. Authorise the Shire President and Chief Executive Officer to sign and affix the Common Seal to any documents relevant to the disposal of Lot 43 (38) McConnell Street, Pithara.*

**CARRIED 8/0**

#### **Consultation**

Nil

#### **Legislative Implications**

State

*Local Government Act – section 6.71(1)(b)*

*Local Government Act 1995 – section 9.49A*

#### **Policy Implications**

Nil



### **Financial Implications**

Nil

### **Strategic Implications**

Nil

### **Site Inspection**

Site inspection undertaken: Not applicable

### **Triple Bottom Line Assessment**

#### Economic implications

There are no known significant economic implications associated with this proposal.

#### Social implications

There are no known significant economic implications associated with this proposal.

#### Environmental implications

There are no known significant environmental implications associated with this proposal.

### **Officer Comment**

Landgate have advised that in order for the land to be sold to Dalwallinu Concrete, the land is required to be transferred to the Shire of Dalwallinu.

It is the Officers recommendation that The Transfer of Land (Sale for Rates) document be signed to enable the property to be sold.

### **Officer Recommendation/Resolution**

#### **MOTION 10009**

Moved            Cr SC Carter  
Seconded       Cr KJ Christian

That Council authorise the Shire President and Chief Executive Officer to sign and affix the Common Seal to the Transfer of Land (Sale for Rates) document for Lot 43 (38) McConnell Street, Pithara.

**CARRIED 8/0**





## Transfer of Land (Sale for Rates)

Approved form 2017-82717 Reg 3 of the Transfer of Land Regulations 2004

The information in this form is collected under statutory authority and used for the purpose of maintaining publicly searchable registers and indexes.

### Jurisdiction

State of Western Australia

### Legislation

Transfer of Land Act 1893

Local Government Act 1995

### Lodging party details

Name Hall & Wilcox  
Address Level 19, 108 St Georges Terrace  
PERTH WA 6000  
Issuing box 888V  
Phone 08 9482 7900  
Fax 08 9482 7999  
Email settlements.wa@hallandwilcox.com.au  
Reference 204882

### Preparer details

Name Janaya Clarke  
Phone +61 8 9215 3030  
Reference 204882

### Land / Interest

Title(volume-folio)	Extent	Land description	Interest
1101-77	Whole	LOT 43 ON DEPOSITED PLAN 229929	FEE SIMPLE

### Registered proprietor(s)

REGINALD DOUGLAS HARRINGTON OF PITHARA

### Authorising party (Local government authority)

SHIRE OF DALWALLINU (ABN 34957928647) OF PO BOX 141 DALWALLINU WA 6609

### Transferee(s)

SHIRE OF DALWALLINU (ABN 34957928647) OF PO BOX 141 DALWALLINU WA 6609

### Terms and conditions

Consideration AS DESCRIBED  
Description Pursuant to section 6.71(1)(b) of the Local Government Act 1995 (WA)

### Issuing authority

The execution of this document will request the NON ISSUE of Duplicate Certificate(s) of Title for the Land above described.

### Operative words

The authorising party in exercise of the power of sale conferred by the legislation stated above for the consideration expressed above hereby transfers to the transferee an estate in fee simple in the said land free from encumbrances except those to which the estate of the transferee may be subject by virtue of the legislation stated above.



Authorising party (Local government authority) execution

The common seal of SHIRE OF DALWALLINU (ABN 34957928647) was hereunto affixed in the presence of

Common Seal

Signature \_\_\_\_\_  
Signer name KEITH LESLIE CARTER

Signature \_\_\_\_\_  
Signer name JEAN MAREE KNIGHT

**Western Australia - Oaths, Affidavits and Statutory Declarations Act 2005 - Statutory Declaration**

I KEITH LESLIE CARTER of C/- 58 JOHNSTON STREET DALWALLINU WA 6609, occupation PRESIDENT

Sincerely declares as follows:

1. I am duly authorised to make this declaration.
2. I am an authorised employee of the Local Government Authority described above.
3. That on the sale of the within land the provisions of Sub-Division 6 of Division 6 of Part 6 of the *Local Government Act 1995* were complied with.

**This declaration is true and I know that it is an offence to make a declaration knowing that it is false in a material particular. This declaration is made under the *Oaths, Affidavits and Statutory Declarations Act 2005***

at (place) DALWALLINU on (date) \_\_\_\_\_

by (Signature) \_\_\_\_\_

**In the presence of**

Authorised witness signature \_\_\_\_\_

Authorised witness name \_\_\_\_\_

Authorised witness qualification \_\_\_\_\_

Authorised witness address \_\_\_\_\_

Full descriptions of these witness qualifying professions are detailed within the *Oaths, Affidavits and Statutory Declarations Act 2005* available online at [www.legislation.wa.gov.au](http://www.legislation.wa.gov.au)

I **JEAN MAREE KNIGHT** of C/- **58 JOHNSTON STREET DALWALLINU WA 6609**, occupation **CHIEF EXECUTIVE OFFICER**

Sincerely declares as follows:

1. I am duly authorised to make this declaration.
2. I am an authorised employee of the Local Government Authority described above.
3. That on the sale of the within land the provisions of Sub-Division 6 of Division 6 of Part 6 of the *Local Government Act 1995* were complied with.

This declaration is true and I know that it is an offence to make a declaration knowing that it is false in a material particular. This declaration is made under the *Oaths, Affidavits and Statutory Declarations Act 2005*

at (place) **DALWALLINU** on (date) \_\_\_\_\_

by (Signature) \_\_\_\_\_

In the presence of

Authorised witness signature \_\_\_\_\_

Authorised witness name \_\_\_\_\_

Authorised witness qualification \_\_\_\_\_

Authorised witness address \_\_\_\_\_

Full descriptions of these witness qualifying professions are detailed within the *Oaths, Affidavits and Statutory Declarations Act 2005* available online at [www.legislation.wa.gov.au](http://www.legislation.wa.gov.au)

Transferee(s) execution

The common seal of **SHIRE OF DALWALLINU (ABN 34957928647)** was hereunto affixed in the presence of **Common Seal**

Signature \_\_\_\_\_

Signer name **KEITH LESLIE CARTER**

Signer designation **PRESIDENT**

Signature \_\_\_\_\_

Signer name **JEAN MAREE KNIGHT**

Signer designation **CHIEF EXECUTIVE OFFICER**



**10 APPLICATIONS FOR LEAVE OF ABSENCE**

Nil

3.50pm *Mr Barton Sprigg left the meeting and did not return.*

3.50pm *Mr Andrew Davies left the meeting and did not return.*

**11 MOTIONS OF WHICH NOTICE HAS BEEN RECEIVED**

Nil

**12 QUESTIONS FROM MEMBERS WITHOUT NOTICE**

Nil

**13 NEW BUSINESS OF AN URGENT NATURE (INTRODUCED BY DECISION OF THE MEETING)**

Nil

**14 MEETING CLOSED TO THE PUBLIC – CONFIDENTIAL BUSINESS AS PER LOCAL GOVERNMENT ACT, 1995, SECTION 5.23(2)**

**PROCEDURAL MOTION 10010**

Moved           Cr NW Mills  
Seconded       Cr JL Counsel

That Council moves into a confidential session at 3.50pm as per Local Government Act, 1995, Section 5.23(2)

- (c) a contract entered into, or which may be entered into, by the local government and which relates to a matter to be discussed at the meeting; and
- (e) a matter that if disclosed, would reveal —
  - (i) a trade secret; or
  - (ii) information that has a commercial value to a person; or
  - (iii) information about the business, professional, commercial or financial affairs of a person, where the trade secret or information is held by, or is about, a person other than the local government;

to discuss:

**14.1** Award of RFT2223-02 – Supply and Lay Asphalt

**CARRIED 8/0**



#### 14.1 Award of RFT2223-02 – Supply & Lay Asphalt\*

<b>Report Date</b>	22 November 2022
<b>Applicant</b>	Shire of Dalwallinu
<b>File Ref</b>	FM/28 – Financial Management - Tendering
<b>Previous Meeting Reference</b>	Nil
<b>Prepared by</b>	Jean Knight, Chief Executive Officer
<b>Supervised by</b>	Jean Knight, Chief Executive Officer
<b>Disclosure of interest</b>	Nil
<b>Voting Requirements</b>	Simple Majority
<b>Attachments</b>	Tender Matrix

#### Purpose of Report

Council is requested to consider the tenders received for RFT2223-02 Supply & Lay Asphalt.

#### Officer Recommendation/Resolution

##### **MOTION 10011**

Moved           Cr SC Carter  
Seconded       Cr MM Harms

That Council:

1. Award RFT2223-02 Supply & Lay Asphalt to Prism Contracting & Consulting at the quoted price of \$346,675.60 ex GST;
2. Authorise the Chief Executive Officer to enter into a contract with Prism Contracting & Consulting as per the tender documentation.

**CARRIED 8/0**

##### **PROCEDURAL MOTION 10012**

Moved           Cr KJ Christian  
Seconded       Cr NW Mills

That the meeting come from behind closed doors at 3.52pm.

**CARRIED 8/0**

#### 15 SCHEDULING OF MEETING

The next Ordinary Meeting of Council will be held on 20 December 2022 at the Shire of Dalwallinu Council Chambers, Dalwallinu commencing at 3.30pm.



**16 CLOSURE**

There being no further business, the Chairperson closed the meeting at 3.52pm.

**17 CERTIFICATION**

I, Keith Leslie Carter, certify that the minutes of the Ordinary Council meeting held on the 22 November 2022, as shown on page numbers 1 to 321 were confirmed as a true record at the meeting held on 20 December 2022.



CHAIRPERSON

20.12.22

DATE

