SCHEME AMENDMENT REQUEST

LOT 8 (NO. 100) BUCKTHORN DRIVE, LOWER CHITTERING REZONING

PLANNING AND DEVELOPMENT ACT 2005

RESOLUTION DECIDING TO AMEND A TOWN PLANNING SCHEME

SHIRE OF CHITTERING

DISTRICT ZONING SCHEME

TOWN PLANNING SCHEME No. 6 - AMENDMENT No. 58

RESOLVED that the Council, pursuant to Section 75 of the Planning and Development Act 2005, initiate an Amendment to the Shire of Chittering Town Planning Scheme No. 6 to:

1. Modifying the Scheme Maps by introducing the Rural Residential zone over Lot 8 Buckthorn Drive, Lower Chittering.

Dated this day of 20.....

GARY TUFFIN CHIEF EXECUTIVE OFFICER

SCHEME AMENDMENT REPORT

:

:

LOCAL AUTHORITY

DESCRIPTION OF

TYPE OF SCHEME

SHIRE OF CHITTERING

SHIRE OF CHITTERING TOWN PLANNING SCHEME NO. 6

DISTRICT ZONING SCHEME

SERIAL NO. OF AMENDMENT:

TOWN PLANNING SCHEME :

PROPOSAL:

AMENDMENT NO. 58

MODIFYING THE SCHEME MAPS BY INTRODUCING THE RURAL RESIDENTIAL ZONE OVER LOT 8 BUCKTHORN DRIVE, LOWER CHITTERING.

DOCUMENT CONTROL

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Version	File Name	Prepared by	Approved by	Date	
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- 1. Scheme Amendment Map
- 2. Indicative Subdivision Plan
- 3. Certificate of Title and Survey Plan
- 4. Easement M113247
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01 Introduction Council, pursuant to C

Council, pursuant to Section 75 of the Planning and Development Act 2005, has resolved to initiate an amendment to the Shire of Chittering Town Planning Scheme No. 6 ('TPS6') by:

Rezoning the Amendment Site from "Agricultural Resource" to "Rural Residential" as depicted on the Scheme Amendment Map.

The purpose of the proposed Scheme Amendment is to facilitate the future development and subdivision of the Amendment Site.

This report provides background information on the subject site and the surrounding area, and addresses all town planning, environmental, servicing and other considerations relevant to the Amendment Site and the proposed Scheme Amendment.

This report includes a description of the following matters:

- Location of the subject site;
- Description of the existing land use;
- Overview of relevant planning and design issues;
- Detailed explanation of the proposed Scheme Amendment; and
- ▲ Justification for the proposed Scheme Amendment.

Description of Site

2.1 Location

The Amendment Site is located in the municipality of the Shire of Chittering (the 'Shire'), approximately 45km north-east of the Perth Central Area.

The Amendment Site is situated in Lower Chittering and is bound by Polinelli Road to the west and existing rural residential properties to the north, south and east. Polinelli Road is a sealed, gazetted road.

Refer Figure 1 – Regional Location.

Vehicle access to the Amendment Site is also provided via Buckthorn Drive which abuts a section of the northern lot boundary. Buckthorn Drive is also a sealed, gazetted road.

Refer Figure 2 – Local Location.

2.2 Cadastral Information

The Amendment Site comprises one land parcel, being:

▲ Lot 8 on Diagram 60138 Certificate of Title Volume 1708, Folio 536.

The site measures 39.9849ha in area and maintains a frontage of 529.43m to Polinelli Road and 28m to Buckthorn Drive.

Refer Figure 3 – Site Location and Attachment 3 – Certificate of Title and Survey Plan.

2.2.1 Easement to Electricity Networks Corporation

A review of the Certificate of Title reveals that there is an easement (M113247) in place over a portion of the Amendment Site location adjacent to the northern lot boundary, near Buckthorn Drive. The easement gives the Electricity Networks Corporation the full right and liberty from time and at all times to enter in, upon, over and across the portion of the land which is subject to the easement.

Refer Attachment 4 – Easement M113247.

03 Site Analysis

3.1 Topography

The Amendment Site is slightly undulating. The highest part of the site, located within the central portion of the lot, is situated at approximately 230m above sea level sloping down to approximately 220m above sea level at the eastern and western portions of the lot.

3.2 Existing Improvements

The Amendment Site currently comprises a single dwelling located within the eastern portion of the site. A total of three (3) sheds are located approximately 200m directly south of the existing dwelling for the storage of machinery.

Refer Figure 3 – Site Location.

3.3 Surrounding Land Uses

The Amendment Site is surrounded by existing "Rural Residential" development to the north, south and east. The neighbouring "Rural Residential" lots range in size from approximately 2ha to 5ha. It is proposed that as a result of the rezoning of the Amendment Site, a number of additional lots similar in size will be created and dealt with through the preparation of a Structure Plan.

Land to the west of the subject site is partially vegetated and undeveloped land.

Refer Figure 2 – Local Location.

04 Environmental Considerations 4.1 Vegetation

The Amendment Site currently contains scattered vegetation throughout the majority of the site. The Shire's Local Biodiversity Strategy identifies the western part of the site as a Local Natural Area. This matter is further discussed within section 4.2.2 of this report.

4.2 Wetlands

No wetland areas are present on, or in vicinity of the subject site.

4.3 Site Contamination

The subject site is not registered as a contaminated site on the Department of Environmental Regulation's (DER) Contaminated Sites Database.

4.4 Acid Sulphate Soils

A review of Landgate's SLIP database indicates that there is no acid sulphate risk associated with the site.

4.5 Heritage

4.5.1 European Heritage

A review of the Shire's TPS6 and website confirms that the subject site is not identified as a site with European heritage significance.

4.5.2 **Aboriginal Heritage**

A desktop investigation of the subject site was undertaken using the Department of Aboriginal Affairs online mapping system. The investigation indicated that the subject site is not identified as a site of Aboriginal heritage significance.

Servicing

5.1 Sewer

Based on the results of a 'Dial Before You Dig' ('DBYD') search, the Amendment Site is not connected to a reticulated sewerage system.

Subject to the favourable determination of the proposed amendment and the future subdivision of the site, development on the proposed lots would be conducted to an on-site effluent disposal system to the satisfaction of the Shire.

5.2 Water

Based on the results of a DBYD search the subject site is not connected to a main water supply.

Subject to the favourable determination of the Scheme Amendment and subdivision processes, the proposed lots would incorporate a water tank with a minimum capacity of 120,000L, as required by the Shire's Water Supply and Drainage Policy.

5.3 Stormwater

As previously noted within section 3.1 of this report, the highest part of the site is located within the central portion of the lot and is situated at approximately 230m above sea level. This highest portion of the Amendment Site slopes down to approximately 220m above sea level at the eastern and western portions of the lot.

Based on the above, stormwater is expected to drain naturally towards the eastern and western portions of the site. Given the large lot sizes which are illustrated within the Indicative Subdivision Plan ('ISP' – which is described in further detail under 7.4.1 of this report), it is anticipated that any future residential development will avoid being located within the lowest lying portions of the indicative lots. We note that further consideration will be given to this matter during the preparation of a Structure Plan for the Amendment Site.

5.4 Roads

The subject site maintains frontage to two (2) constructed and gazetted roads, of 529.43m to Polinelli Road and 28m to Buckthorn Drive.

5.5 Gas

Based on the results from a DBYD search, the Amendment Site is not connected to a main gas supply.

The Amendment Site is currently provided with a gas supply through the installation of 45kg or 90kg gas bottles. It is anticipated that similar arrangements would be made for any proposed lots within the application area.

5.6 Electricity

Based on the results from a DBYD search, the Amendment Site is provided with electricity serviced through an existing pillar and transformer. The DBYD search also indicates that low voltage overhead powerlines are presently located along the western lot boundary, along Polinelli Road.

Suitable arrangements would be made during the subdivision process for the connection of the proposed lots to Electricity services.

5.7 Telecommunication

The DBYD search has also confirmed that the Amendment Site is provided with telecommunication services.

Future development at the Amendment Site will be provided with accessible telecommunication services.

U6 6.1 Regional Planning Considerations

6.1.1 Shire of Chittering Town Planning Scheme No. 6

Under the provisions of the Shire Town Planning Scheme No. 6 ('TPS6'), the Amendment Site is zoned "Agricultural Resource". Land to the north, south and east of the Amendment Site is zoned "Rural Residential". Despite the current zoning of the Amendment Site, the property has not been used for agricultural purposes for a number of years.

The western half of the Amendment Site is located within the "Military Consideration" area which is considered as a "Special Control Area" under the provisions of TPS6.

Refer Figure 4 - TPS6 Zoning Plan.

State Planning Policy 2.5 – Land Use Planning in Rural Areas 6.1.2

In May 2012 the Western Australian Planning Commission ('WAPC') released the Statement of Planning Policy 2.5 – Land Use Planning in Rural Areas ('SPP2.5'). Section 5.6 of SPP2.5 outlines provisions which provide specific guidance in establishing rural living precincts. SPP2.5 states that rural living proposals may be supported where they comply with the objectives of the policy and meet requirements of section 5.6 of the policy.

This Amendment complies with the relevant policy measures outlined within section 5.6 of SPP2.5 based on the following reasons:

- The Amendment site is part of a settlement hierarchy established by the Shire's Local Planning Strategy which was endorsed by the WAPC in June 2004;
- The proposed rezoning will not conflict with rural land use activity as the subject site is primarily surrounded by existing "Rural Residential" zoned land. The proposed rezoning will have minimal impact to "Agricultural Resource" zoned land to the west of the Amendment Site as the land does not appear to be used for intensive agricultural purposes;
- Despite the current zoning of the land as "Agricultural Resource", the productivity of the Amendment Site for agricultural purposes and deteriorated over time. As such, the proposed rezoning will not rezone land which is considered as being prime agricultural land;
- SPP2.5 indicates that lots which are less than 4ha is size are encouraged to be connected to a reticulated water supply. A reticulated water supply is not located within close proximity to the Amendment Site and, as such, future subdivision and development at the site will be required to install an appropriate sized rainwater tank to provide potable water for future residents;
- The Amendment Site is currently provided with a reticulated electricity supply. Additional lots created at the Amendment Site can relatively easily be serviced with electricity;
- Future development at the Amendment Site will consider the relevant requirements within Australian Standard 3959 Construction of Buildings in Bushfire-Prone Areas. Future details on how development will meet these requirements will be outlined within a Structure Plan which is to be prepared for the site.

6.1.3 State Planning Policy No. 1 – State Planning Framework Policy

In February 2006 the WAPC released the Statement of Planning Policy No. 1 – State Planning Framework Policy ('SPP1') which sets out key principles and considerations for planning within Western Australia. This Amendment takes into consideration the key principles for land use planning which include environment, community, economy, infrastructure and regional development. Each of the aforementioned has been considered below.

6.1.3.1 Environment

The proposed rezoning from "Agricultural Resource" to "Rural Residential" will not detrimentally impact the existing natural vegetation located at the Amendment Site.

The proposed zoning will not allow for the creation of small allotments or the removal of large portions of the vegetation at the site. Any future development at the Amendment Site will be sensitive to the existing natural environment. A detailed environmental assessment will be undertaken during the preparation of a Structure Plan for the Amendment Site indentifying any areas of environmental significance.

6.1.3.2 Community

The proposed rezoning responds to the social demand and desire of people wishing to reside within the Shire of Chittering. Based on historical aerial photography the number of rural residential style properties within the Shire has grown.

The Amendment Site is appropriately located to support the anticipated and planned growth within the Lower Chittering and Maryville areas.

6.1.3.3 Economy

The proposed rezoning will enable the development of a number of rural typed dwellings. This growth will subsequently support the existing and future economy of the locality.

6.1.3.4 Infrastructure

Future development at the Amendment Site as a result of the proposed rezoning will be appropriately designed and constructed to ensure that it is sympathetic to the existing locality.

This Amendment will have no significant impacts to surrounding infrastructure such as roads and existing dwellings.

6.1.3.5 Regional Development

This Amendment proposes an appropriate land use which considers the natural and physical assets of the locality along with proposing a land use which is consistent with the Shire's planned growth for the area, as outlined within the Strategy.

6.1.4 State Planning Policy 3.7 – Planning for Bushfire Risk Management

In May 2014 the WAPC released the draft Statement of Planning Policy 3.7 – Planning for Bushfire Risk Management ('SPP3.7') which relates to the subdivision and development of land within bushfire prone areas. SPP3.7 intends to assist in reducing the risk of bushfires to people, property and infrastructure by taking a risk-minimising approach to any development proposed within a bushfire prone area.

A Bushfire Management Plan ('BMP') has been prepared by Strategen Environmental. The BMP concludes that each of the proposed lots comprises an area which is suitable to accommodate a residential dwelling, as the Bushfire Attack Level for each of the identified building envelope areas will be at a BAL29.

Any proposed future subdivision and development at site will be required consider the findings outlined within the Fire Statement and the BMP.

Refer Attachment 5 – Fire Statement and BMP.

6.2 Local Planning Framework

6.2.1 Shire of Chittering Local Planning Strategy 2001-2015

The Shire has prepared a Local Planning Strategy (the 'Strategy') which assists in guiding development and conservation of land within the Scheme area. The purpose of the Strategy, which was adopted by the WAPC on 29th June 2004, is as follows:

"To achieve the vision, mission and aims of the Shire of Chittering and use opportunities open to it, which are outlined in the State Government Policies i.e. the State Planning Strategy, the Avon Arc Sub Regional Strategy Plan and the North Eastern Corridor Extension Strategy, and to provide a guide to development for the next 15-20 years."

The Strategy map identifies the Amendment Site as being located within the "Rural Residential Precinct" and further identifies the Amendment Site as a "Priority Development Area".

The aims of the "Rural Residential Precinct" are as follows:

- a) To provide a safe and pleasant rural living environment in a cohesive development pattern;
- b) To provide for adequate community facilities;
- c) To require all lots to be provided with scheme water wherever possible;
- d) To provide for a range of lot sizes to match land capabilities;
- e) To provide for biodiversity corridors in association with conservation of natural vegetation and watercourses;
- f) To facilitate the development of cohesive road patter to serve the community needs;
- g) To ensure catchment management principles are applied to all development proposals;
- *h)* To provide for adequate road structures for convenience, fire management and escape, emergency vehicle, and community service traffic movement; and
- i) To stage development in a coordinated manner to suit the servicing need for the communities.

This Amendment is consistent with the provisions of the Shire's Strategy, and is consistent with the relevant aims of the "Rural Residential Precinct" for the following reasons:

- The proposed "Rural Residential" zoning for the Amendment Site will contribute towards providing a pleasant rural living environment as well as a cohesive land use and development pattern;
- Where and if possible, the Amendment Site will be connected to the Shire's main water supply;
- The proposed zoning of the Amendment Site will enable the creation of a range of lots sizes which are consistent within a "Rural Residential" zone; and
- Where possible, natural vegetation will be retained at the Amendment Site during future subdivision and development at the site.

Based on the above, the proposed Amendment is consistent with the requirements of the relevant aims of the "Rural Residential Precinct".

6.2.1.1 Future Strategies and Progressive Development for Maryville and Lower Chittering The Shire's Strategy identifies the Amendment Site as being located within the Lower Chittering and Maryville sub-region. The Strategy outlines the following as future strategies for progressive development within the Maryville and Lower Chittering area:

- a) To facilitate Maryville as the locality's centre for minor commercial and community and recreational purposes;
- b) To continue the subdivision and development for rural residential and other compatible uses;
- c) To ensure that the road network proceeds to provide essential linkages with other subdivisional areas; and
- *d)* To facilitate the inclusion of Marbling Brook as a main biodiversity corridor and protected waterway.

The Strategy also notes that the Maryville area will be promoted as minor community centre for the southern part of the Shire area. This will also include the Lower Chittering area. The Amendment Site is located approximately 2km south of the Maryville area. This Amendment proposes an appropriate land use which is consistent with the strategies outlined above based on the following reasons:

- The Amendment Site is located within close proximity to proposed Maryville community centre area;
- The purpose of this Amendment is to rezone land to "Rural Residential" to enable future subdivision and development of the Amendment Site; and
- The Amendment Site is provided with suitable road linkages to support a "Rural Residential" zoning and to enable future subdivision and development of the site.

6.2.2 Shire of Chittering Local Biodiversity Strategy

The Shire endorsed the Local Biodiversity Strategy ('LB Strategy') in April 2010 which provides a strategic approach in planning for the conservation of local natural areas.

Our review of the LB Strategy indicates that the Amendment Site is not identified as a High Conservation Value Area; however approximately 50% of the Amendment Site is identified as a Local Natural Area ('LNA'). The LB Strategy states that land which is identified as a LNA is encouraged to be retained or protected.

The LB Strategy further identifies approximately 50% of the Amendment Site as comprising vegetation which is identified as containing flora with a Level 3 significance, meaning that the vegetation at the site is considered to be in 'Good' condition.

The LB Strategy further indicates that the Level 3 significance vegetation within the site is of the *'Mogumber'* typed vegetation complex.

We note that consideration will be given towards the existing vegetation during the preparation of a Structure Plan for the site, which is further outlined below.

6.2.2.1 Consideration of Existing Flora Fauna

As noted above, a portion of the Amendment Site is identified as a LNA and contains vegetation which is considered to be in 'Good' condition. During the preparation of a Structure Plan for the Amendment Site, further investigation and consideration will be given to the existing vegetation. During the preparation of a Structure Plan for the Amendment Site following the initiation of the Amendment, careful consideration will be given to identify the location of the proposed Building Envelopes to ensure

that minimal clearing of existing vegetation will be required, particularly that of the '*Mogumber*' complex. Consideration will also be given towards the existing fauna found at the Amendment Site.

The Building Envelopes proposed as part of the Structure Plan will not exceed the permitted size outlined within TPS6, being 2,000m².

The LB Strategy indicates that a target of 26% of the *'Mogumber'* vegetation is to be protected and retained. The location of the building envelopes within each proposed lot will take into consideration the existing *'Mogumber'* complex vegetation.

Furthermore, we note that after a rezoning of the Amendment Site to "Rural Residential", a Structure Plan will be prepared guiding the future development at the site. During the preparation of this Structure Plan environmental consultants will be engaged to determine the significance of the existing vegetation at the site along with any environmental constraints. Future development at the Amendment Site will take into consideration the findings of the environmental assessment and as much vegetation is anticipated to be retained where possible.

6.2.3 City of Chittering Town Planning Scheme No. 6

6.2.3.1 Zoning

Under the provisions of the Shire's TPS6 the Amendment Site is zoned 'Agricultural Resource'.

TPS6 outlines the following objectives for the 'Agricultural Resource' zone:

- a) To preserve productive land suitable for grazing, cropping and intensive horticulture and other compatible productive rural uses in a sustainable manner;
- *b)* To protect the landform and landscape values of the district against despoliation and land degradation;
- c) To encourage intensive agriculture and associated tourist facilities, where appropriate;
- d) To allow for the extraction of basic raw materials where it is environmentally and socially acceptable.

6.2.3.2 Military Consideration Area

The western half of the Amendment Site is located within the "Military Consideration" area which is considered as a "Special Control Area" under the provisions of TPS6.

TPS6 outlines the following Planning Requirements for the "Military Consideration" – "Special Control Area":

Planning Approval is required for any development within this Special Control Area. Any new dwelling shall be constructed so as to comply with any noise attenuation measures required by Australian Standard AS 2021-2000 Aircraft Noise Intrusion – Building Siting and Construction issue by the Standards Association of Australia. The Local Government shall not permit the construction and occupation of more than one dwelling or holiday or other short term accommodation on any one lot within the designated area.

Clause 6.5 of TPS6 outlines provisions relating to the "Military Consideration" area. We note that any development within this area is required to be constructed so as to comply with any noise attenuation measures outlined within the Australian Standard AS 2021-2000 Aircraft Noise Intrusion – Building Siting and Construction issue by the Standard Association of Australia.

Future development at the Amendment Site will take into consideration the relevant noise attenuation requirements. This matter will be addressed in more detail during the preparation of a Structure Plan for the Amendment Site.

Refer Figure 5 – TPS6 Zoning Plan.

07 Description and Justification for the Proposed Scheme Amendment

7.1 Overview

Pursuant to Section 75 of the *Planning and Development Act 2005*, Council has resolved to resolve to initiate an amendment to TPS6 by:

i. Rezoning the Amendment Site from "Agricultural Resource" to "Rural Residential" as depicted on the Scheme Amendment Map.

Refer Attachment 1 – Scheme Amendment Map.

7.2 Purpose of Amendment

The purpose of the proposed Amendment is to facilitate subdivision of the Amendment Site into lot with a minimum area of two (2) hectares, and to enable the site to be utilised for "Rural Residential" purposes.

The Amendment Site is located adjacent to existing "Rural Residential" zoned land and, as such, this Amendment proposes a land use which is consistent with the locality.

7.3 Consistency with TPS6

7.3.1 Consistency with Military Consideration Area

As outlined previously within this report the western portion of the Amendment Site is within the Military Consideration Area. The purpose of the Military Consideration Area is as follows:

To protect the integrity of the operations of the RAAF Air Base Pearce and its flight paths and to provide conditions on development on land within the designated Special Control Areas which may be effected by noise. To minimise the number of people residing in the delineated flight path subject to significant levels of aircraft noise.

We note that any development within this area is required to be constructed so as to comply with any noise attenuation measures outlined within the *Australian Standard AS 2021-2000 Aircraft Noise Intrusion* – *Building Siting and Construction issue by the Standard Association of Australia*.

Future development at the Amendment Site will take into consideration the relevant noise attenuation requirements. This matter will be addressed in more detail during the preparation of a Structure Plan for the Amendment Site.

7.4 Suitability of Proposed Use

The Amendment Site is located adjacent to existing "Rural Residential" zoned land and, as such, this Amendment proposes a land use which is consistent with the locality. The proposed zoning of the Amendment Site will enable the site to be subdivided and developed similarly to existing surrounding "Rural Residential" land.

7.4.1 Indicative Subdivision Plan

Future subdivision of the Amendment Site is to be similar to that illustrated within the attached ISP.

As outlined within the attached ISP, it is anticipated that the Amendment Site will be subdivided into approximately 12 lots which are all to have directed frontage to an existing or proposed road. Future subdivision of the Amendment Site will not result in the creation of any lots in a battleaxe arrangement.

Under section 4.2.8 – 'Rural Residential Zone' of TPS6, the following objectives are outlined for the Rural Residential zone:

To designate areas where rural residential developments can be accommodated without detriment to the environment or the rural character of the area.

To meet the demand for a rural lifestyle on small lots, generally in excess of 1 hectare.

To maintain and enhance the rural character and amenity of the locality

As indicated within the ISP, the proposed lots will be subdivided into lots not less than 2 hectares each, therefore fulfilling the land size objectives of the Rural Residential zone.

Further consideration into the subdivision design for the Amendment Site will be undertaken during the preparation of a Structure Plan for the site. It is anticipated that the ISP may be amended to reflect advice from various consultants during the preparation of the Structure Plan and it is therefore noted that the attached ISP is only an indicative plan at this stage.

Refer Attachment 2 - Indicative Subdivision Plan.

Conclusion

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The purpose of this Scheme Amendment is to amend the Shire of Chittering Town Planning Scheme No. 6 by:

i. Rezoning the Amendment Site from "Agricultural Resource" to "Rural Residential" as depicted on the Scheme Amendment Map.

In order to facilitate future subdivision of the Amendment Site it is necessary to rezone the Amendment Site to "Rural Residential" under TPS6.

The Amendment will enable future subdivision and development of the Amendment Site which is consistent with the Shire's Local Planning Strategy.

The Amendment will have no adverse impact on the amenity of the locality.

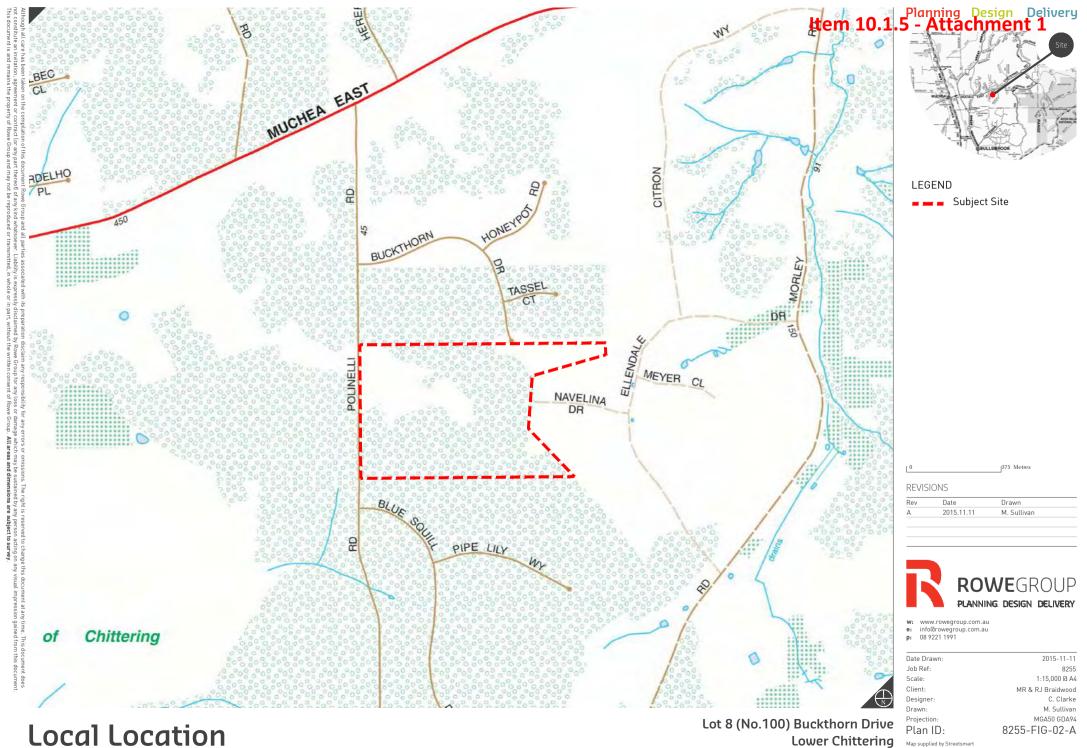
In light of the above, the Amendment is considered to be consistent with orderly and proper planning.

FIGURES

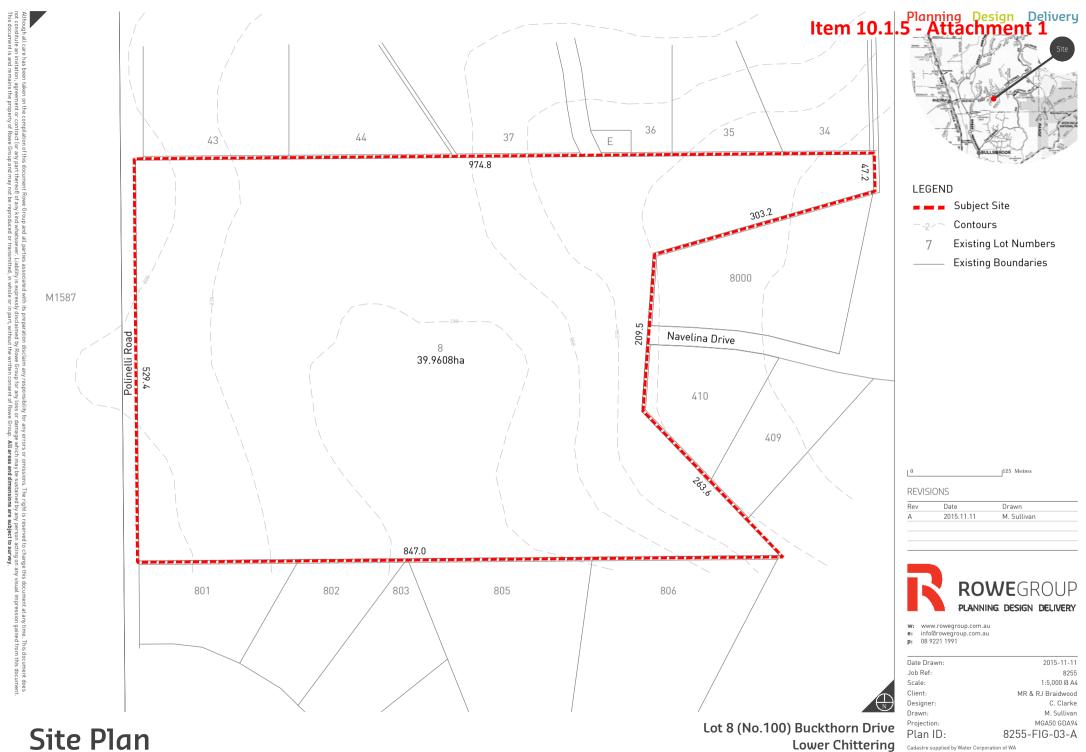


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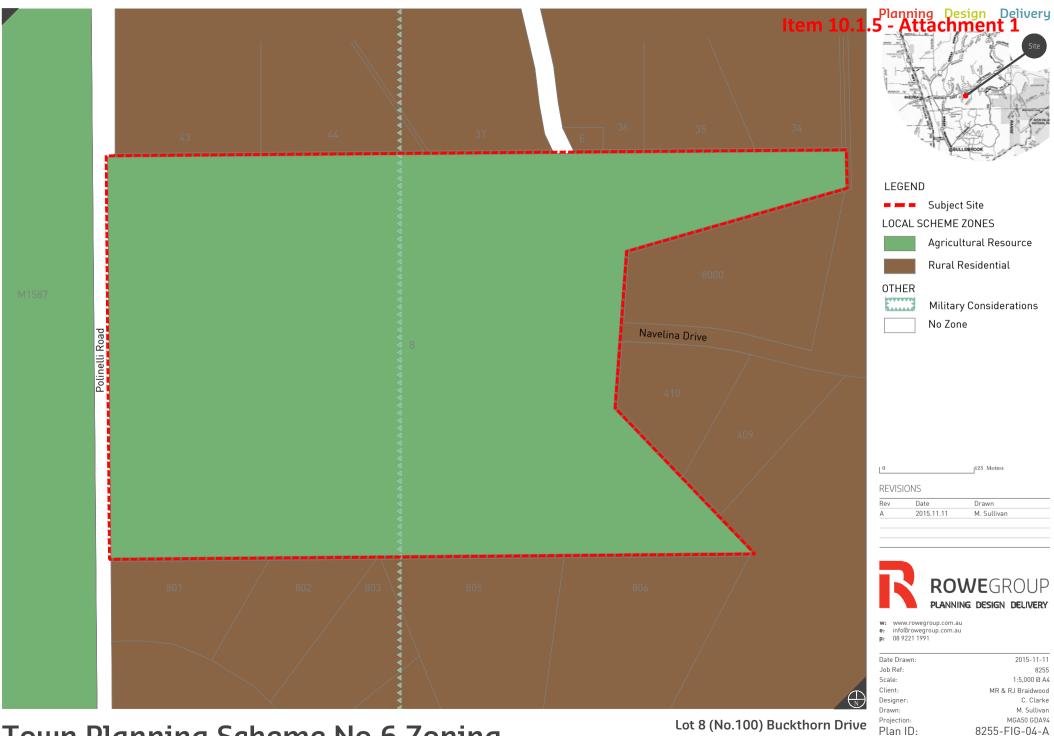
Lot 8 (No.100) Buckthorn Drive Lower Chittering Map supplied by WA Planning Commission



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Town Planning Scheme No.6 Zoning N:\TOWN PLANNING\8000-8999\8255\DRAFTING\A-CAD\8255_FIG04A_20151111 Matt Sullivan 11 November 2015

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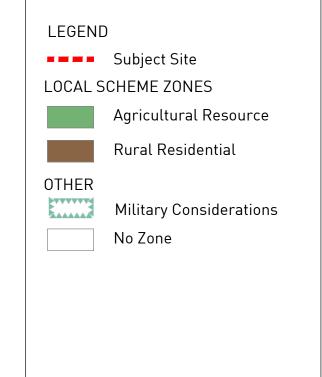
Lot 8 (No.100) Buckthorn Drive Lower Chittering Zoning supplied by WA Planning Commission

8255-FIG-04-A

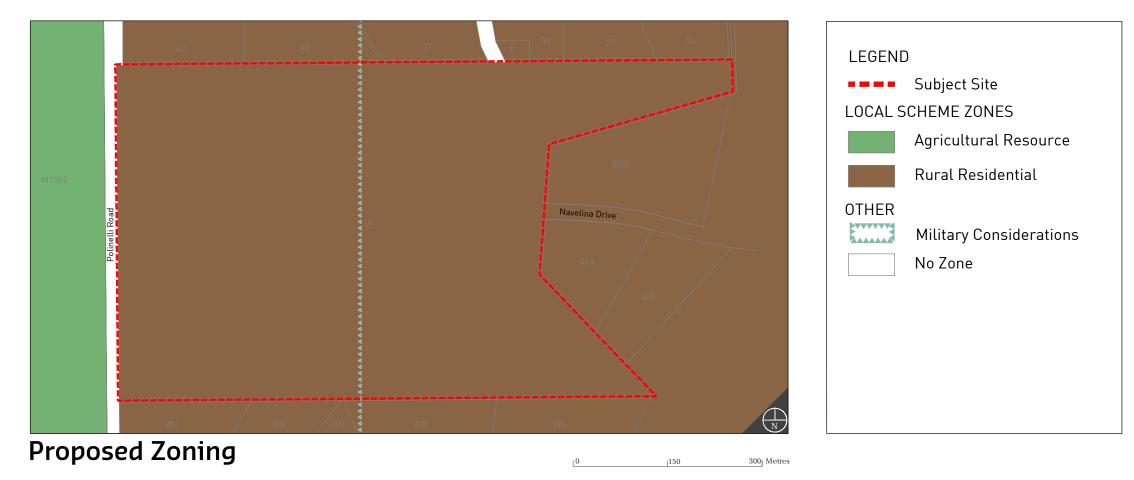


Shire of Chittering Town Planning Scheme No. 6 Amendment No. xx





Existing Zoning



ADOPTION/REFUSAL

ADOPTION [Regulation 13(1)] ADOPTED by resolution of the Council of the Shire of Chittering at the Ordinary Meeting of the Council held on the ___th day of ____, 201__.

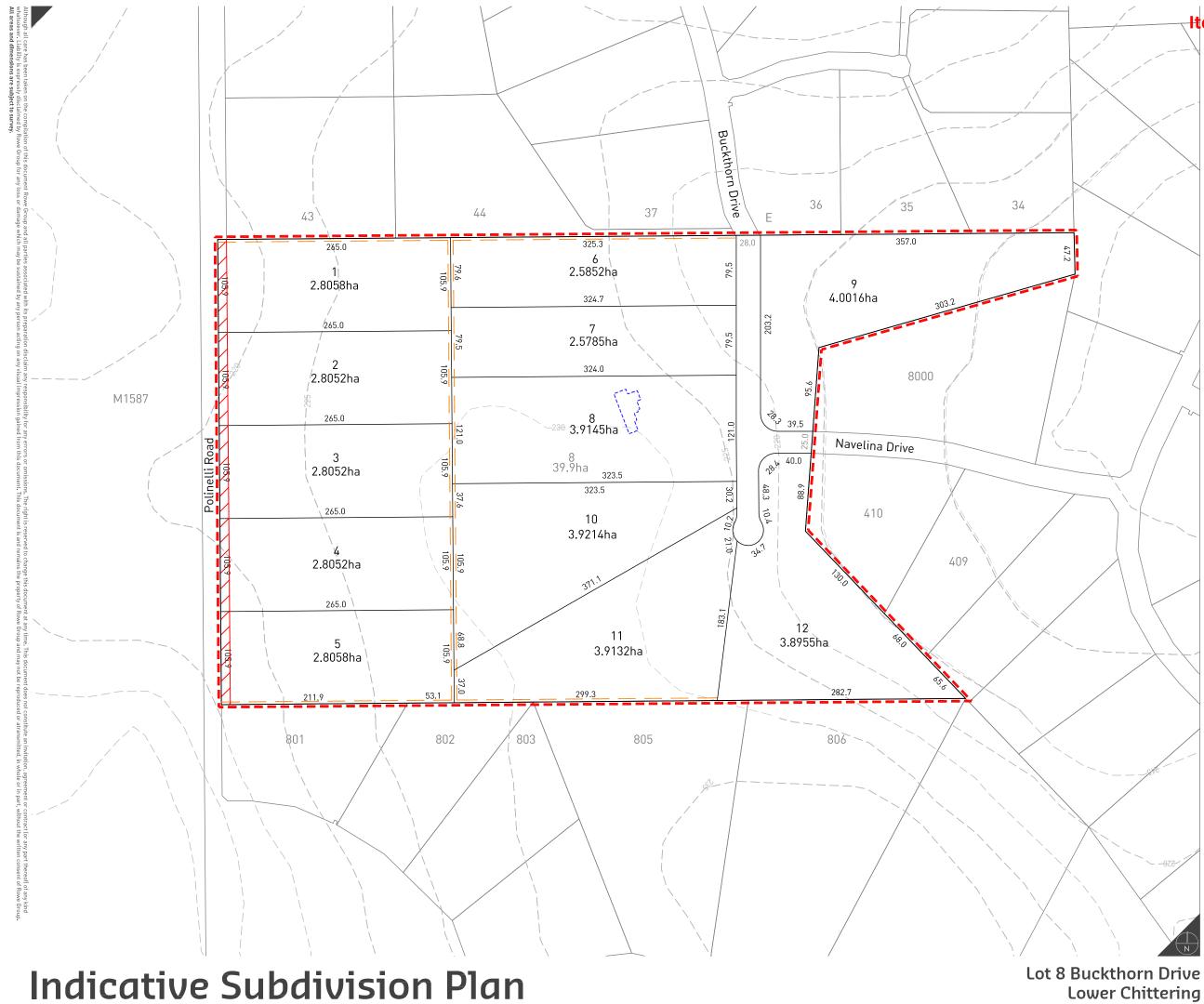
Item 10.1.5 - Attachment 1

MAYOR

CHIEF EXECUTIVE OFFICER

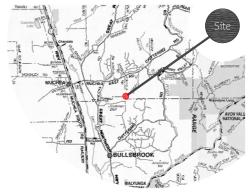
FINAL APPROVAL 1. FINAL ADOPTION BY COUNCIL Adopted for Final Approval by Resolution of the Shire of Chittering at the ______Meeting of Council held on the day of _ The Common Seal of the Shire of Chittering was hereunto affixed by authority of a resolution of the Council in the presence of: MAYOR CHIEF EXECUTIVE OFFICER 2. RECOMMENDED / SUBMITTED FOR FINAL APPROVAL: DELEGATED UNDER S.16 OF PD ACT 2005 Date: 3. FINAL APPROVAL GRANTED MINISTER FOR PLANNING Date:





Lower Chittering

Hem 10.1.5 - Attachment 1



LEGEND

- 🛛 📥 🧧 Subject Site
- Contours
- Existing Lot Numbers
- **Existing Boundaries**
- Proposed Boundaries
- Fire Breaks
- Anticipated Road Widening

Existing Building (To Be Retained)

0	100	200 ₁ Metres
REVISIONS		

Date	Drawn	
2014.11.14	M. Sullivan	
2015.11.23	M. Sullivan	
2015.12.07	M. Sullivan	
	2014.11.14 2015.11.23	2014.11.14 M. Sullivan 2015.11.23 M. Sullivan



ROWEGROUP PLANNING DESIGN DELIVERY

w: www.rowegroup.com.aue: info@rowegroup.com.aup: 08 9221 1991

Date Drawn: Job Ref: Scale: Client: Designer: Drawn Projection: Plan ID:

Cadastre supplied by Watercorp

2014-11-14 8255 1:4000 @ A3 Mr. and Mrs. Braidwood C. Clarke M. Sullivan MGA50 GDA94 8255-SUB-03-C

ATTACHMENT 3 CERTIFICATE OF TITLE AND SURVEY PLAN

29/1/2013

REGISTER NUMBER 8/D60138

VOLUME

1708

WESTERN

AUSTRALIA

DATE DUPLICATE ISSUED DUPLICATE EDITION 1

> FOLIO 536

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

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





LAND DESCRIPTION:

LOT 8 ON DIAGRAM 60138

REGISTERED PROPRIETOR: (FIRST SCHEDULE)

MAXWELL ROY BRAIDWOOD ROSALIE JOYCE BRAIDWOOD BOTH OF 15 MANDALAY PLACE, CRAIGIE AS JOINT TENANTS

(T D126619) REGISTERED 11 OCTOBER 1985

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

1. EXCEPT AND RESERVING METALS, MINERALS, GEMS AND MINERAL OIL SPECIFIED IN TRANSFER 15912/1947.

EASEMENT TO THE ELECTRICITY NETWORKS CORPORATION FOR ACCESS PURPOSES. 2. M113247 **REGISTERED 23.11.2012.**

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

> -----END OF CERTIFICATE OF TITLE-----_____

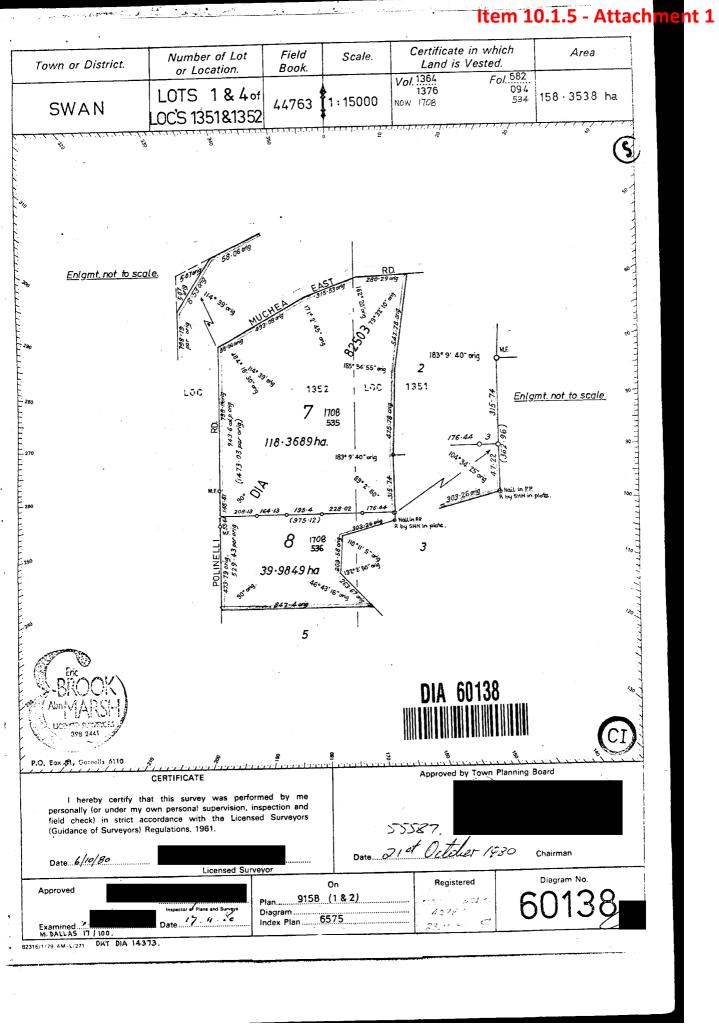
STATEMENTS:

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

SKETCH OF LAND: PREVIOUS TITLE: PROPERTY STREET ADDRESS: LOCAL GOVERNMENT AREA:

1708-536 (8/D60138). 1708-534. 100 BUCKTHORN DR, LOWER CHITTERING. SHIRE OF CHITTERING.







ATTACHMENT 4 EASEMENT M113247

	INSTRUCTIONS		M1129A7 E
1.	This form may be used only when a "Box Type" form is not provided or is unsuitable. It may be completed in narrative style.		23 Nov 2012 15:01:23 Midland
2.	If insufficient space hereon Additional Sheet Form B1 should be used.		
3.	Additional Sheets shall be numbered consecutively and bound to this document by staples along the left margin prior to execution by the parties.	ż	
4.	No alteration should be made by erasure. The words rejected should be scored through and those substituted typed or written above them, the alteration being initialled by the persons signing this document and their witnesses.		LODGED BY WESTERN POWER
	NOTES		enstration 285 BM (enstration 285 BM
1.	Insert document type.		ADDRESS 363-365 WELLINGTON STREET PERTH WA 6000
2.	A separate attestation is required for every person signing this document. Each signature should be separately witnessed by		PHONE No. 9326 6308
	an <u>Adult Person</u> . The full name, address and occupation of the witness <u>must</u> be stated.		FAX No. 9225 2057
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			REFERENCE No. ED/3/M1(37A)V31 (DM# 9880352v1)
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		Limit	6.474) Receiving Clerk
	Landgate		Registered pursuant to the provisions of the TRANSFER OF LAND ACT 1893 as amended on the day and time shown above and particulars entered in the Register.
EX	AMINED	- 2 ¹ 01 N 	winitaaliy storm.



	IAXWELL ROY BRAIDWOOD
Ginnad	AXLIELL KON KRAIDLINOD
Signed III	
(P	rint Full Name)
Wit	tness signature:
In the Wit	tness full name: //
presence of Wit	tness occupation:
	tness address:
	SALIE JOYCE BRAIDWOOD
Signed KOS	SALIE JOYCE INKAIDWOOD
. (P	rint Full Name)
la tha 👘 W	itness signature:
111110	itness full name: /
	itness occupation
w w	itness address:
· ·	behalf of ELECTRICITY
	CORPORATION by persons
	its Board in accordance with
Act 2005.) of the Electricity Corporations
Authorised Pe	rson – Name: JAMES KENT BUTLER
Authorised Pe	rson - Name: Mark Coefficient de Laster
	rson - Name: Mark Geoffrey de Laeter
,	

			Page No. 4 of 6 Page	
	1	THE SCHEDULE		
Part 1 – Encumbra	inces			
Except and Reservi F152910 Mortgage		Gems and Mineral O	il Specified in Transfe	r 15912/1947
Part 2 – Encroach	ments			
Nil				
Part 3 – Electricity	Works			
Underground Cable	Distribution Cable			
DATED this	20m	day of	November	2012
			gagee under and by vir Easement.	tue of Mortgage
DATED this		day of		2012
		<u></u>		
,				



Page No. 3 of 6 Pages.





ADDITIONAL PAGE TO

Dated

EASEMENT IN GROSS

2. MUTUAL COVENANTS

The Grantor and Electricity Networks Corporation MUTUALLY AGREE AND DECLARE that:

- (a) Electricity Networks Corporation shall maintain all bridges, gates, culverts, access roads and improvements which it makes to the Land to the extent that they serve the Electricity Works;
- (b) Electricity Networks Corporation shall not be required to fence off all or any part of the Easement but may cut and remove part of any fence as Electricity Networks Corporation may require to enjoy the Grant;
- (c) subject to the express provisions of this Grant, Electricity Networks Corporation shall do. as little damage as is reasonably possible and shall make good or otherwise pay adequate compensation for all physical damage done to the Land and any premises or thing, by Electricity Networks Corporation in the course and at the time of the exercise of any power of entry onto the Easement;
- (d) in this Grant, unless the context otherwise requires:
 - (i) a covenant or agreement entered into by more than one person shall be deemed entered into and to bind all parties jointly and each party severally;
 - (ii) a reference to the Grantor (where there is more than one) shall mean and include each of them and any two or more of them; and
 - (iii) all words and phrases which are defined in the Act, shall have the same meanings whenever they appear in this Grant;
- (e) this Grant is made and received upon and subject to all of the rights, powers and authority of Electricity Networks Corporation contained in the Act and any other Act or Acts, including the Energy Operators (Powers) Act 1979 Sections 28(3)(d), 36, 37 and 45, which now or subsequently confer any rights, powers or authorities on Electricity Networks Corporation.



Page No. 2 of 6 Pages 10.1.5 - Attachment 1

1. GRANTORS COVENANTS

- 1.1 The Grantor COVENANTS with Electricity Networks Corporation not to:
 - (a) alter or disturb the present grades and contours of the surface of the land within the Easement except with the prior written consent of Electricity Networks Corporation.
 - (b) construct, erect, set up, improve, enlarge or alter any:
 - (i) contour bank;
 - (ii) fenced stormwater drain or compensating basin; or
 - (iii) fenced artificial lake;

within the Easement without the prior written consent of Electricity Networks Corporation, which Electricity Networks Corporation may grant in its discretion, with or without conditions;

- (c) stack, place or store any plant or material within the Easement without Electricity Networks Corporation's consent which will not be unreasonably withheld;
- (d) bring onto or permit to be brought onto the Easement any explosive, flammable or unstable substance or material other than agricultural crops;
- (e) blast or permit any blasting within the Easement;
- (f) carry on or permit to be carried on any activity or operation which endangers the safety of the Electricity Works or the safe, efficient and continuous operation of the Electricity Works;
- 1.2 Nothing in clause 1.1 is intended to prohibit the Grantor from constructing and maintaining any landscaping, paths, public art, public furniture or similar structures within the Easement, so long as
 - (a) no excavation trenching or digging activity exceeds 450mm in depth from the present levels and contours of the surface of the ground within the Easement; and
 - (b) no paths, public art, public furniture or similar structures are placed so as to obstruct access to the Electricity Works.



Date

BLANK INSTRUMENT FORM

EASEMENT IN GROSS

(Note 1)

I/WE MAXWELL ROY BRAIDWOOD AND ROSALIE JOYCE BRAIDWOOD BOTH OF 15 MANDALAY PLACE, CRAIGIE in the State of Western Australia ("the Grantor", which expression includes the transferees, assigns, personal representatives and successors in title of the Grantor) being registered as the proprietor of an estate in Fee Simple in ALL THAT land being: /

LOT 8 ON DIAGRAM 60138 AND BEING THE WHOLE OF THE LAND CONTAINED IN CERTIFICATE OF TITLE VOLUME 1708 FOLIO 536

("the Land").

AGREE THAT IN CONSIDERATION of the sum of **ONE DOLLAR** (\$1.00) paid to me/us on the execution of this GRANT by Electricity Networks Corporation, a body corporate pursuant to the Electricity Corporations Act 2005 ("the Act") of 363-365 Wellington Street, Perth in the State of Western Australia ("the Grantee", which expression includes the successors and assigns of Electricity Networks Corporation) subject only to the –

Encumbrances (if any) notified in Part 1 of the Schedule; and Encroachments (if any) notified in Part 2 of the Schedule,

I/WE TRANSFER AND GRANT to Electricity Networks Corporation full right and liberty for Electricity Networks Corporation from time to time and at all times hereafter, to enter in, upon, under, over and across ALL THAT portion of Land denoted 'A' as shown on **Deposited Plan 74824 Version 1** ("the Easement") and to remain on and occupy the Easement at all times for so long as is necessary for Electricity Networks Corporation to (subject to the terms of this Easement):

- (a) clear and keep the Easement clear of trees, shrubs, vegetation and other growth;
- (b) break, excavate (to the depth necessary), remove timber, vegetation, soil, earth, gravel and stone upon the Easement; and
- (c) set up, lay down, establish, maintain, utilize, operate and at any time, inspect, service, maintain, repair, replace, alter or remove the system of electricity Transmission and or Distribution Works named and described in Part 3 of the Schedule and all of the Works and Undertakings which now or in the future form any part of those Works ("the Electricity Works") and to transmit or distribute electricity and information through the Electricity Works without interruption or hindrance from the Grantor and the Grantor's Personnel.

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Level 1, 50 Subiaco Square Road Subiaco WA 6008 PO Box 243 Subiaco WA 6904 Phone (08) 9380 3100 Fax (08) 9380 4606 177 Spencer Street Bunbury WA 6230 PO Box 287 Bunbury WA 6231 Phone (08) 9792 4797 Fax (08) 9792 4708

To: Camille Clarke Company: Rowe Group Fax/email: Camille.Clarke@rowegroup.com.au Date: 17 December 2015 Project No: ROG15382.01 Inquiries: Roger Banks

Fire Statement

Proposed Scheme Amendment: Lot 8 Buckthorn Drive, Lower Chittering

Background

Rowe Group is currently in the process of seeking a Scheme Amendment for Lot 8 Buckthorn Drive, Lower Chittering to rezone the site from 'Agricultural Resource' to 'Rural Residential'. This Fire Statement (FS) has been prepared to determine potential bushfire management issues to inform the proposed Scheme Amendment and future planning stages. The FS is based on desktop review of the existing fire environment on and adjacent to the site.

Overview of site characteristics and existing fire environment

<u>Site context</u>

Lot 8 currently consists of approximately 40 ha of land and contains a single dwelling and associated sheds/outbuildings amongst a mixed agricultural/rural residential/bushland setting. The site is bound by the following:

- Polinelli Road and Lot 1587 to the west
- rural residential Lots 34-37, 43 and 44 to the north
- rural residential Lots 408-410 and 412 and Lot 8000 (R 51533) to the east
- rural residential Lots 801-803, 805 and 806 to the south.

Vehicular access

The main vehicle access point to the site is via a driveway off Buckthorn Drive to the north. Navelina Drive also terminates at the site's eastern boundary. The site itself contains numerous access tracks that navigate sporadically throughout the subject land.

<u>Water supply</u>

Existing residents rely on rainwater tanks for domestic and emergency water supply. Two rainwater tanks are situated adjacent to the existing dwelling.

Predominant vegetation

The predominant vegetation situated on and adjacent to the site is consistent with the Mogumber (Mb) vegetation complex. This vegetation is described as being open woodland of *Corymbia calophylla*, with some mixture of *Eucalyptus marginata* and a second storey of *E. todtiana*, *Banksia attenuata*, *B. menziesii* and *B. illicifolia* on sandy gravels on the uplands in arid and peri-arid zones (Mattiske 1998).

Sstrategen

Botanical vegetation descriptions are often inconsistent with the vegetation class descriptions outlined under AS 3959–2009 Construction of Buildings in Bushfire-prone Areas (SA 2009) and Strategen considers the open woodland Mogumber vegetation outlined by Mattiske (1998) is likely to represent a forest vegetation class under AS 3959–2009 due to the eucalypt-banksia combination and estimated tree heights greater than 10 m. Therefore, Strategen has adopted a forest vegetation class at this stage as a worst case to inform potential bushfire planning requirements under AS 3959–2009. This will need to be confirmed as part of a detailed site investigation to inform subsequent planning stages.

On-site vegetation is a combination of:

- isolated areas of intact forest
- · broad areas of overstorey canopy with an assumed grazed understorey
- cleared and degraded areas, particularly in the northwest.

Rural residential properties to the north and south of the site contain a more intact forest structure around individual dwellings. Large Lot 1587 to the west contains a significant remnant of forest vegetation that links with a long fire run further to the south and southwest. Rural residential properties to the east are predominantly cleared and pose minimal bushfire risk.

The predominant vegetation on and adjacent to the site is depicted as being in 'Good' condition according to the Local Biodiversity Strategy (Shire of Chittering 2010). The Local Biodiversity Strategy also states that the Mogumber vegetation complex is considered to be under-protected regionally (i.e. less than 10% of the vegetation complex is protected regionally). Consequently, the developer intends to retain as much of the existing on-site vegetation as possible as part of the development in line with the Local Biodiversity Strategy.

Slope under classified vegetation

The site is flat to gently undulating and elevation peaks at approximately 231 mAHD (Australian Height Datum) up from 221 mAHD at western boundary.

The slope under classified forest vegetation is likely to be either flat land or 0–5 degrees for the purposes of informing assessment under AS 3959–2009. This will need to be confirmed through detailed site investigation. The following is a summary of a desktop slope assessment carried out on adjacent land:

- · vegetation to the west and southwest is down-slope from the site
- vegetation to the southeast is up-slope from the site
- land to the east is down-slope from the site but contains no classified vegetation
- vegetation to the north is on flat land or up-slope from the site.

As a result of the above, it is likely that a proportion of the proposed development will be situated up-slope from classified vegetation, which will increase the Bushfire Attack Level (BAL) and building construction standard response under AS 3959–2009 for proposed dwellings.

Worst case bushfire scenario

Strategen considers a fire front approaching the site from the south, southwest or west to be the worst case bushfire scenario. This is due to the long fire run of forest vegetation grading up the scarp in these directions. Under standard afternoon weather conditions in summer, the likely prevailing winds from these directions may be capable of directing a bushfire towards the site and the resulting fire behaviour is likely escalate over this time and contribute elevated levels of radiant heat and ember attack on the proposed development. Therefore, a higher bushfire mitigation response should be considered along the southern and western site interfaces (such as increased building exclusion zones) to address the heightened bushfire risk.

Bushfire hazard levels

The vegetation located on and adjacent to the site is expected to be a moderate or extreme bushfire hazard and following detailed site investigation, is likely to be confirmed as bushfire prone. This will trigger formal application of AS 3959–2009 for all proposed buildings located within 100 m of the bushfire prone vegetation. This assumption is consistent with the Department of Fire and Emergency Services (DFES) Western Australian State Map of Bush Fire Prone Areas, which currently designates the site as being a bushfire prone area.

Potential bushfire management constraints based on indicative subdivision plan

Since vegetation is going to be retained on-site where possible and the proposed development will be situated directly adjacent to vegetation retained along the northern, western and southern interfaces, it is likely that all proposed lots will be affected by bushfire prone vegetation and will need to address requirements of:

- State Planning Policy 3.7 Planning in Bushfire Prone Areas (WAPC 2015a)
- Guidelines for Planning in Bushfire Prone Areas (WAPC 2015b)
- AS 3959–2009 (SA 2009).

Consequently, a Bushfire Management Plan (BMP) will need to be prepared to accompany the Structure Plan submission in accordance with the above policy, guideline and standard.

In response to the above, Strategen provides the following considerations for the proposed development based on the indicative subdivision plan and desktop bushfire assessment (note that these assumptions will need to be confirmed through detailed site investigation):

- 1. Minimum 27 m wide development exclusion zones along the southern and western site boundaries to avoid development within BAL FZ and BAL 40 areas. Polinelli Road and anticipated road widening can be included in this zone provided the road verges are kept in a low threat vegetation/minimal fuel condition state.
- 2. Minimum 21 m wide development exclusion zone along the northern site boundary to avoid development within BAL FZ and BAL 40 areas.
- Consideration of BAL 12.5–BAL 29 building construction standards for all proposed lots situated at the direct interface with the northern, western and southern boundaries (to be confirmed as part of the BMP).
- 4. Consideration of BAL 12.5–BAL 29 building construction standards for any lot proposed to retain vegetation on site that is greater than 0.25 ha in area (to be confirmed as part of the BMP).
- 5. Creation and ongoing management of a minimum 20 m wide Asset Protection Zone (APZ) around each proposed dwelling. The APZs are to be contained wholly on each individual lot and managed all year round at less than 2 t/ha. There is scope to retain individual overstorey trees within the APZ provided the understorey fuels are maintained at less than 2 t/ha. No buildings are permitted within the APZ.
- Consideration of a Hazard Separation Zone (HSZ) around each APZ where required to achieve compliant separation distances in accordance with the assessed BAL rating. The HSZs are to be maintained all year round at 5–8 t/ha.
- Construction of a 92 kL volume capacity rainwater tank with adequate access for fire fighting vehicles as a minimum for each proposed lot. The tanks are to be used jointly for domestic and emergency fire fighting use. Appropriate couplings and flow valves will also need to be incorporated as per DFES standards.
- 8. At this stage, Strategen expects the proposed vehicular access network to be compliant with relevant bushfire planning provisions given each proposed lot is provided a minimum of two vehicular access routes. The proposed cul-de-sac will be subject to specific provisions and will not be able to exceed 200 m in length, with the cul-de-sac head being required to achieve a minimum 17.5 m diameter.

Considerations for proposed Scheme Amendment

Strategen considers that rezoning of the site to 'Rural Residential' and subsequent development of lots will not contravene provisions of State Planning Policy 3.7, Guidelines for Planning in Bushfire Prone Areas and AS 3959–2009 and the bushfire risk to proposed life and property can be adequately managed as part of the development.

By virtue of the large lot sizes proposed, Strategen believes that through appropriate location of building envelopes, each proposed dwelling can be sited to meet the required separation distances to on-site and adjacent bushland necessary to achieve BAL 29 or lower under AS 3959–2009 and that BAL FZ and BAL 40 areas can be avoided.

Subsequent to the above, Strategen recommends that a BMP be prepared to document the bushfire management measures proposed as part of the development to address requirements of State Planning Policy 3.7, Guidelines for Planning in Bushfire Prone Areas and AS 3959–2009. The BMP is to accompany a Structure Plan submission to the Shire, as required at the next planning stage. The BMP is to have due regard to the information contained in this Fire Statement and is to be based on detailed site investigation. The BMP should specifically address the following:

- spatial consideration of bushfire threat, including description of existing site characteristics, existing fire environment, bushfire hazard assessment, indicative building envelope locations and BAL assessment
- · detailed discussion of the proposed bushfire management measures
- demonstration of development compliance and justification to explain how the proposed development will meet the various bushfire protection criteria
- inclusion of a proposed works program to guide bushfire management implementation and enforcement.

The BMP should also include a detailed mapping component that addresses the requirement to map the classified vegetation extent, slope under vegetation, bushfire hazard levels and proposed management measures. Indicative building envelope locations should also be depicted as part of the BMP to specify locations of APZs and HSZs in order to demonstrate the separation distances can be achieved to comply with the BAL ratings proposed for each dwelling.

The BMP should also discuss what level of vegetation retention is suitable to occur on site and any subsequent fuel reduction techniques that need to be considered should the on-site retention pose additional bushfire risk to future life and property.

References

Mattiske Consulting 1998, *Mapping of Vegetation Complexes in the South West Forest Region of Western Australia*, Department of Conservation and Land Management, Perth.

Shire of Chittering 2010, Local Biodiversity Strategy, report prepared for Shire of Chittering, April 2010.

- Standards Australia (SA) 2009, Australian Standard AS 3959–2009 Construction of Buildings in Bushfireprone Areas, Standards Australia, Sydney.
- Western Australian Planning Commission (WAPC) 2015a, *State Planning Policy 3.7 Planning in Bushfire-Prone Areas*, Western Australian Planning Commission, Perth.
- Western Australian Planning Commission (WAPC) 2015b, *Guidelines for Planning in Bushfire-Prone Areas*, Western Australian Planning Commission, Perth.



Bushfire Management Plan

Lot 8 Buckthorn Drive, Lower Chittering

Prepared for Rowe Group by Strategen

January 2016



Bushfire Management Plan

Lot 8 Buckthorn Drive, Lower Chittering

Strategen is a trading name of Strategen Environmental Consultants Pty Ltd Level 1, 50 Subiaco Square Road Subiaco WA 6008 ACN: 056 190 419

January 2016

Limitations

Scope of services

This report ("the report") has been prepared by Strategen Environmental Consultants Pty Ltd (Strategen) in accordance with the scope of services set out in the contract, or as otherwise agreed, between the Client and Strategen. In some circumstances, a range of factors such as time, budget, access and/or site disturbance constraints may have limited the scope of services. This report is strictly limited to the matters stated in it and is not to be read as extending, by implication, to any other matter in connection with the matters addressed in it.

Reliance on data

In preparing the report, Strategen has relied upon data and other information provided by the Client and other individuals and organisations, most of which are referred to in the report ("the data"). Except as otherwise expressly stated in the report, Strategen has not verified the accuracy or completeness of the data. To the extent that the statements, opinions, facts, information, conclusions and/or recommendations in the report ("conclusions") are based in whole or part on the data, those conclusions are contingent upon the accuracy and completeness of the data. Strategen has also not attempted to determine whether any material matter has been omitted from the data. Strategen will not be liable in relation to incorrect conclusions should any data, information or condition be incorrect or have been concealed, withheld, misrepresented or otherwise not fully disclosed to Strategen. The making of any assumption does not imply that Strategen has made any enquiry to verify the correctness of that assumption.

The report is based on conditions encountered and information received at the time of preparation of this report or the time that site investigations were carried out. Strategen disclaims responsibility for any changes that may have occurred after this time. This report and any legal issues arising from it are governed by and construed in accordance with the law of Western Australia as at the date of this report.

Environmental conclusions

Within the limitations imposed by the scope of services, the preparation of this report has been undertaken and performed in a professional manner, in accordance with generally accepted environmental consulting practices. No other warranty, whether express or implied, is made.

Client: Rowe Group

Report Version	Revision No.	Purpose	Strategen author/reviewer	Submitted to Client	
				Form	Date
Draft Report	Rev A	For review by client	Z Cockerill / R Banks	Electronic (email)	25/01/2016
Final Report	Rev 0	Issued for use: for submission to Shire of Chittering	Z Cockerill	Electronic (email)	27/01/2016

Filename: ROG15394_01 R001 Rev 0 - 27 January 2016

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List of appendices

Appendix 1 January wind profiles for Pearce RAAF Appendix 2 Shire of Chittering Firebreak Notice



1. Introduction

1.1 Background

Rowe Group, on behalf of the landowners, is currently in the process of seeking a Scheme Amendment for Lot 8 Buckthorn Drive, Lower Chittering (the project area) to rezone the site from 'Agricultural Resource' to 'Rural Residential'. The development proposal aims to create 12 lots ranging from 2–5 ha in size and will facilitate road linkage of Buckthorn Drive with Navelina Drive (Figure 1).

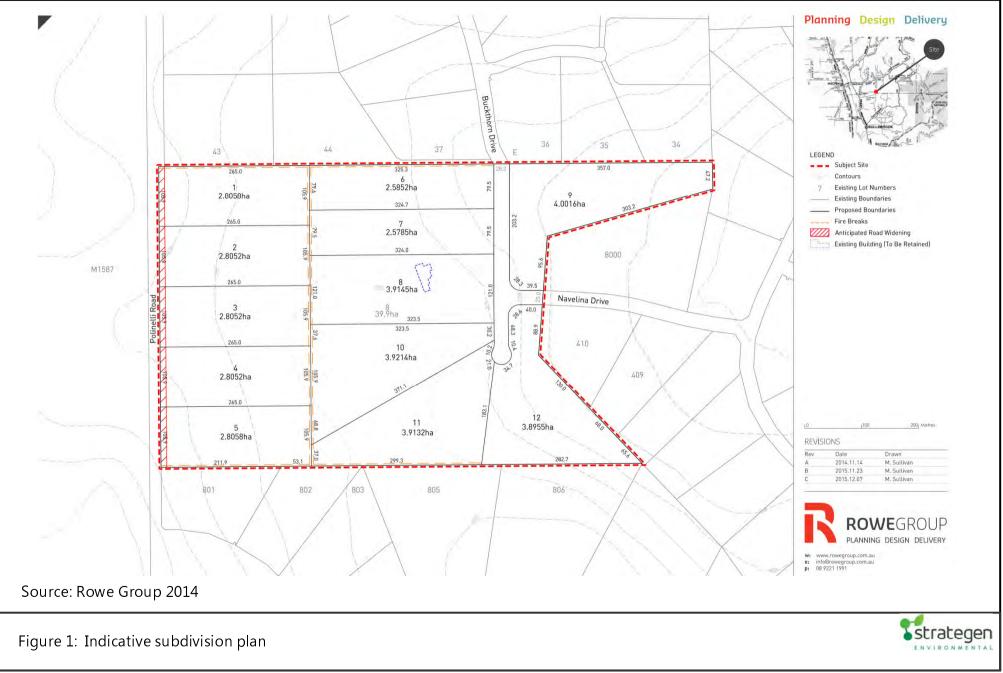
Due to the extent of on-site and adjacent vegetation, the project area is designated as bushfire prone, as depicted in the Western Australian State *Map of Bush Fire Prone Areas* (DFES 2016).

Strategen has prepared this Bushfire Management Plan (BMP) to accompany the Scheme Amendment request to Shire of Chittering (the Shire) in order to meet requirements triggered under *State Planning Policy 3.7 Planning in Bushfire-Prone Areas* (SPP 3.7; WAPC 2015a). This BMP has been prepared in accordance with *Guidelines for Planning in Bushfire-Prone Areas* (the Guidelines; WAPC 2015b).

1.2 Purpose and application of the plan

The purpose of this BMP is to provide guidance on how to plan for and manage the bushfire risk to future assets of the project area through implementation of a range of bushfire management measures. The BMP outlines how future on-site assets can be protected during the summer months when the threat from bushfire is at its peak. This is particularly relevant when existing fire appliances in the area may be unable to offer an immediate emergency suppression response; therefore, development planning and design should aim to provide mitigation strategies that protect future life and property from bushfire as a priority.





2. Spatial consideration of bushfire threat

2.1 Existing site characteristics

2.1.1 Location

The project area comprises Lot 8 Buckthorn Drive, Lower Chittering in the Shire of Chittering, located approximately 45 km northeast of the Perth CBD. The project area is situated approximately 7.5 km east of Muchea and 10 km north of Bullsbrook.

The project area consists of approximately 40 ha of partially vegetated land and contains a single dwelling, associated sheds and water supply infrastructure amongst a mixed agricultural/rural residential/bushland setting. The project area is bound by the following, as depicted in Figure 2:

- Polinelli Road and Lot 1587 to the west
- rural residential Lots 34-37, 43 and 44 to the north
- rural residential Lots 408-410 and 412 and Lot 8000 (R 51533) to the east
- rural residential Lots 801–803, 805 and 806 to the south.

2.1.2 Zoning and land use

The project area is zoned 'Agricultural Resource' under provisions of the Shire of Chittering Town Planning Scheme No. 6 (TPS6) and despite the current zoning, the property has not been used for agricultural purposes for a number of years (Rowe Group 2015). Land to the north, south and east of the project area is zoned 'Rural Residential'. Land to the west of the project area is zoned 'Agricultural Resource'. The western half of the project area is located within a 'Military Consideration' area, which is considered a 'Special Control Area' under the provisions of TPS6 (Rowe Group 2015).

2.1.3 Assets

The project area currently contains life and property assets in the form of a single dwelling that will be retained as part of the proposed development. Other site infrastructure includes sheds in the south, perimeter and internal fencing and water supply infrastructure.

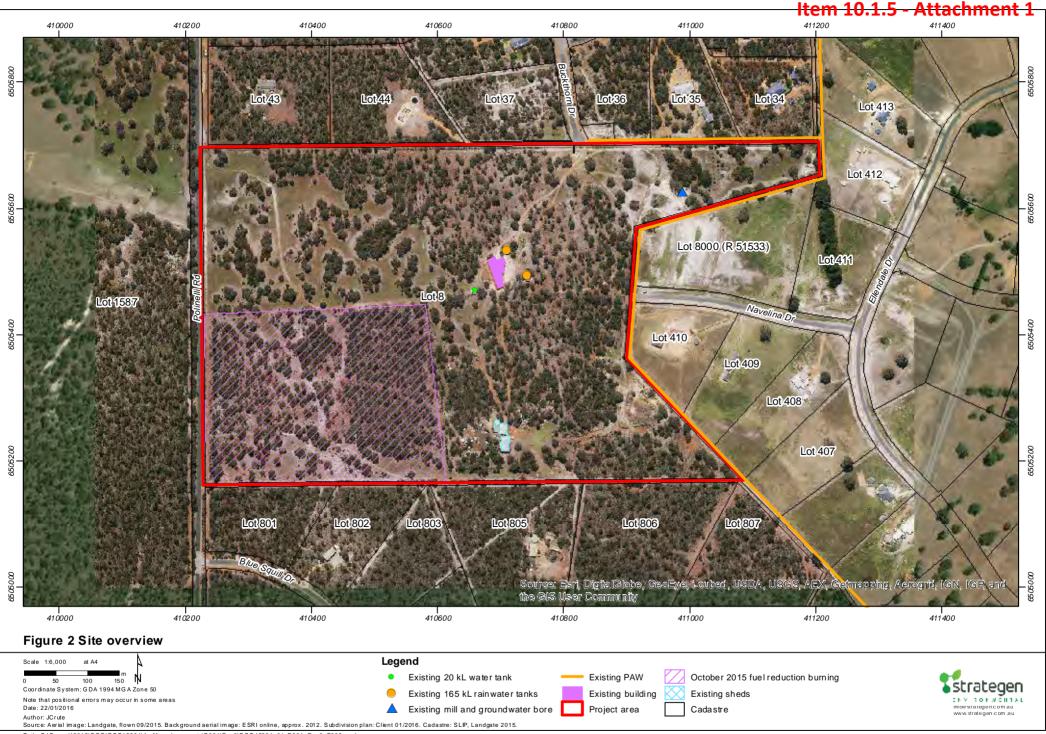
The project area also contains environmental assets in the form of native Jarrah-Marri vegetation of the Mogumber vegetation complex. The predominant vegetation on and adjacent to the site is depicted as being in 'Good' condition according to the Local Biodiversity Strategy (Shire of Chittering 2010). The Local Biodiversity Strategy also states that the Mogumber vegetation complex is considered to be under-protected regionally (i.e. less than 10% of the vegetation complex is protected regionally). Consequently, the developer intends to retain as much of the existing on-site vegetation as possible as part of the development in line with the Local Biodiversity Strategy. In addition, the Shire's Local Biodiversity Strategy identifies the western part of the site as a Local Natural Area but not a High Conservation Value Area (Shire of Chittering 2010). The surrounding land contains similar scale life, property and environmental assets to the project area including dwellings, sheds, fencing, water supply infrastructure and native vegetation.

2.1.4 Access

The project area and existing dwelling is currently accessed via a driveway navigating from the north off Buckthorn Drive. The project area also consists of numerous informal access tracks and is otherwise bound by minimum three metre wide gravel/sand firebreaks. Polinelli Road fronts the western boundary of the project area and Navelina Drive terminates at the eastern boundary of the project area.

A six metre wide gravel Emergency Access Way (EAW) is constructed along the eastern and part-northern boundaries of the project area within the adjacent subdivisions (Figure 2).





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2.1.5 Water and power supply

The project area is not connected to a reticulated mains water supply. The existing dwelling is situated adjacent to two 165 kL rainwater tanks. A groundwater bore and mill to the east of the site fills a 20 kL water tank situated west of the existing dwelling (Figure 2).

The project area is provided electricity through an existing pillar and transformer. Low voltage overhead powerlines are presently located along Polinelli Road to the west (Rowe Group 2015).

2.2 Existing fire environment

2.2.1 Vegetation

The predominant botanical vegetation situated on and adjacent to the project area is consistent with the Mogumber (Mb) vegetation complex. This vegetation is described as being open woodland of *Corymbia calophylla*, with some mixture of *Eucalyptus marginata* and a second storey of *E. todtiana*, *Banksia attenuata*, *B. menziesii* and *B. illicifolia* on sandy gravels on the uplands in arid and peri-arid zones (Mattiske 1998).

The project area and adjacent land has been subject to various levels of vegetation disturbance through clearing and bushfire impacts. Clearing is most prominent to the east as a result of recent rural residential subdivision. Burning is evident to the southwest as a result of an October 2015 fuel hazard reduction burn (Figure 2). This has resulted in modification to the vegetation class in some areas and subsequently, a patchy, discontinuous distribution of the overstorey vegetation, particularly throughout the project area.

Strategen has assessed vegetation class within the project area and adjacent 100 m through on-ground verification. The following provides a summary of this investigation, as depicted in Figure 3:

- on-site vegetation is a combination of:
 - forest (Class A) throughout areas of intact eucalyptus overstorey, banksia midstorey and shrub/grass understorey (Plate 1)
 - woodland (Class B) throughout fragmented, discontinuous and degraded areas of eucalyptus overstorey and grass understorey (i.e. no midstorey) (Plate 2 and Plate 3)
 - * grassland (Class G) throughout unmanaged areas that lack prominent mid and overstorey vegetation (Plate 4)
- adjacent vegetation is a combination of:
 - * grassland (Class G) throughout unmanaged areas that lack prominent mid and overstorey vegetation (mainly to the east) (Plate 5)
 - managed vegetation throughout cleared areas where the land is actively managed (mainly to the east) (Plate 6)
 - forest (Class A) throughout areas of intact eucalyptus overstorey, banksia midstorey and shrub/grass understorey (mainly to the north, south and west) (Plate 7–Plate 9).

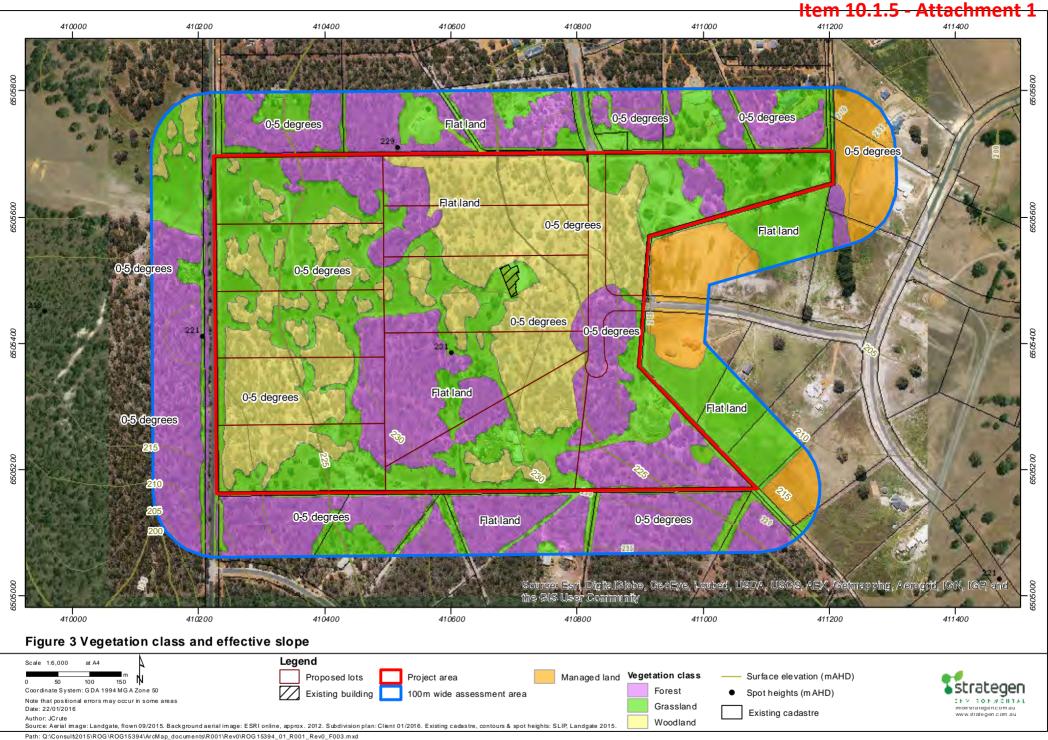
2.2.2 Site topography and slope

The project area and adjacent land is flat to gently undulating. Site elevation at the western and eastern boundaries is approximately 220 mAHD (Australian Height Datum) and this increases to approximately 231 mAHD at a central high point.

Strategen has assessed the effective slope under classified vegetation within the project area and adjacent 100 m through on-ground verification (Figure 3). Slope is negligible in central areas of the site and 0–5 degrees in gently sloping areas to the east, west, north and south.

As a result of the above, it is likely that a large proportion of proposed dwellings will be situated up-slope from classified vegetation, which will increase the Bushfire Attack Level (BAL) and building construction standard response required under AS 3959–2009.





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Plate 1: On-site forest (Class A) vegetation



Plate 2: On-site woodland (Class B) vegetation in foreground (unburnt)



Bushfire Management Plan



Plate 3: On-site woodland (Class B) vegetation in foreground (burnt)



Plate 4: On-site grassland (Class G) vegetation in foreground



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Bushfire Management Plan



Plate 5: Grassland (Class G) vegetation opposite 6 m wide gravel EAW to the east



Plate 6: Managed land opposite 6 m wide gravel EAW to the east



Bushfire Management Plan



Plate 7: Forest vegetation (Class A) opposite 3 m wide gravel firebreak to the south

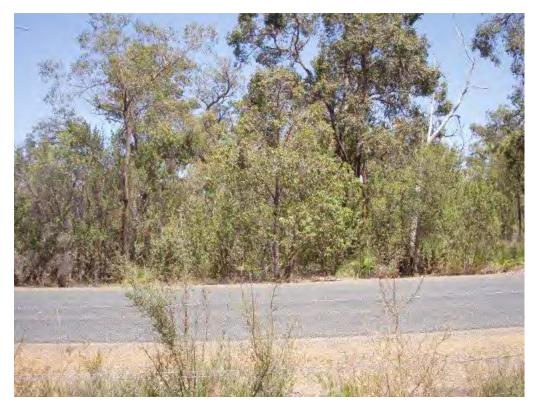


Plate 8: Forest vegetation (Class A) opposite Polinelli Road to the west

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Bushfire Management Plan



Plate 9: Forest vegetation (Class A) opposite 3 m wide gravel firebreak to the north

2.2.3 Bushfire weather conditions

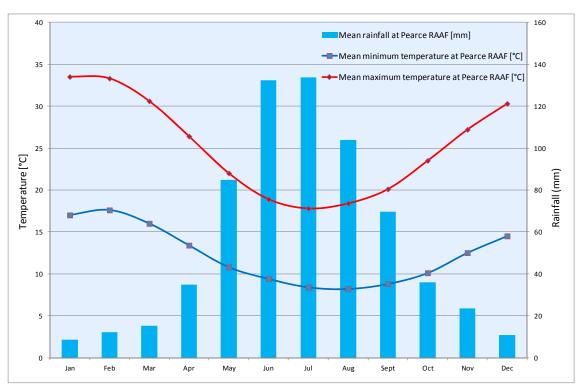
Climate statistics

Lower Chittering experiences a Mediterranean climate characterised by mild, wet winters and warm to hot, dry summers. The nearest Bureau of Meteorology (BoM) weather station that provides the full range of relevant bushfire weather statistics is located at Pearce RAAF (Station No. 9053), approximately 10 km south-southwest of the project area (Figure 4).

Mean annual rainfall recorded at Pearce RAAF is 677.5 mm (BoM 2016). Rainfall may occur at any time of year; however, most occurs in winter in association with cold fronts from the southwest. Highest temperatures occur from December to March, with mean monthly maximums ranging from 30.3°C in December to 33.5°C in January (BoM 2016). Lowest temperatures occur from June to September, with mean monthly minimums ranging from 8.2°C in August to 9.4°C in June (BoM 2016).



Bushfire Management Plan



Source: BoM 2016



Worst case bushfire weather conditions

Southwest Western Australia generally experiences a cool to mild growing season in the months of August through to November of each year, followed by four months of summer drought conditions, which is when the potential for bushfire occurrence is at its peak.

Worst case (adverse) bushfire weather conditions can occur during this dry period when a low pressure trough forms off the west coast and strong winds develop from the north or northeast. These conditions are sometimes associated with 'Extreme' or 'Catastrophic' fire dangers, which are consistent with very high temperatures, low relative humidity and very strong winds. Based on the predominant summer climatic conditions of the local area, 'Extreme' and 'Catastrophic' fire dangers normally occur less than 5% of the time during the designated bushfire season, which equates to around six days between December and March (McCaw & Hanstrum 2003).

Predominant bushfire weather conditions

Predominant bushfire weather conditions are those that occur 95% of the time during the designated bushfire season. For Lower Chittering, these generally correlate with average January climatic conditions.

Mean January 9:00 am and 3:00 pm wind profiles for Pearce RAAF are contained in Appendix 1. These illustrate that the predominant winds during the designated bushfire season are from the east in the morning averaging around 18 km/h and from the southwest in the afternoon averaging around 20 km/h (BoM 2016).

Mean January 9:00 am and 3:00 pm relative humidity for Pearce RAAF is approximately 48% and 30% respectively, with the January mean maximum temperature peaking at around 33.5°C (BoM 2016).

The predominant bushfire weather conditions discussed above correlate with an average Fire Danger Index (FDI) rating of 'High', as determined using the Commonwealth Science and Industrial Research Organisation (CSIRO) Fire Danger and Fire Spread Calculator (CSIRO 1999).



2.2.4 Bushfire history, fuel age, risk of ignition and potential ignition sources

The south-western portion of the project area was subject to fuel hazard reduction burning in October 2015, which has resulted in fuel reduction over this portion of land to less than 2 t/ha (tonnes per hectare) (refer to fire scar in Figure 2). The remainder of the project area is long unburnt; however, clearing and manual fuel removal has resulted in a reduced fuel profile in certain areas, such as around the existing dwelling. Intact pockets of forest throughout the project area are long unburnt maintain high fuel loads in excess of 15–20 t/ha due to high levels of litter, trash, scrub and dead fuel accumulation on the ground.

Land to the north, south and west of the project area is dominated by long unburnt and undisturbed forest vegetation, with fuel loads in excess of 15–20 t/ha. One rural residential lot to the north has recently been subject to fuel hazard reduction burning and maintains a fuel load of less than 5 t/ha.

Land to the east is predominantly cleared as part of recent rural residential subdivision. However, grassland fuels on some undeveloped lots are not actively managed by the respective landowners and the resulting fuel load is up to 5 t/ha. Lots to the east where the grassland fuels are actively managed have fuel loads maintained at less than 2 t/ha.

Since most bushfires are ignited by humans, the current ignition risk is moderate due to the moderate levels of residency, public access and visitation throughout the site and surrounding rural residential landholdings. However, Strategen considers that the ignition risk, particularly within the project area, will increase following development intensification and increased levels of public access and resident occupancy at the bushland interface. Ignition risk throughout the project area will further increase should ongoing fuel management be neglected by prospective landowners.

The potential sources of ignition in the area are expected to be from:

- deliberately lit fire (i.e. arson)
- lightning strike
- · accidental causes, such as vehicle accidents and sparks from vehicle exhausts/machinery
- escapes from fuel hazard reduction burning
- pole-top fires
- incorrect disposal of cigarettes.

2.2.5 Potential bushfire scenarios

Strategen considers a fire front approaching the site from the south, southwest or west to be the worst case bushfire scenario. This is due to the long fire run of forest vegetation grading up the scarp in these directions. Under standard afternoon weather conditions in summer, the likely prevailing winds from these directions may be capable of directing a bushfire towards the site and the resulting fire behaviour is likely to escalate over this time and contribute significantly elevated levels of radiant heat and ember attack on the proposed development. Therefore, the bushfire response at the southern and western site interfaces should incorporate sufficient defendable space and vehicular access to address the heightened bushfire risk.

2.2.6 Bushfire suppression response capability

Local Bush Fire Brigades stationed at Lower Chittering, Muchea, Upper Chittering and Bindoon are expected to provide a best case emergency suppression response time of 30 minutes should a bushfire threaten lives or homes on or adjacent to the project area. Some individual landowners in the area also maintain on-site capacity to mount an immediate fire suppression response via privately owned mobile water units.



2.3 Bushfire hazard assessment

Strategen has mapped the bushfire hazard levels on and within 100 m of the project area (refer to Figure 5). The bushfire hazard levels are summarised as follows and have been assessed on the basis of the vegetation classes identified in Section 2.2.1 and the effective slope under classified vegetation assessed in Section 2.2.2:

- all forest (Class A) vegetation has been assigned a bushfire hazard level of 'Extreme'
- all woodland (Class B) vegetation has been assigned a bushfire hazard level of 'Moderate'
- all grassland (Class G) vegetation and cleared/managed land has been assigned a bushfire hazard level of 'Low'.

2.4 BAL assessment

Vegetation with a 'Moderate' or 'Extreme' bushfire hazard level is considered bushfire prone and any proposed development located within 100 m of the bushfire prone vegetation extent will require application of *AS 3959–2009 Construction of Buildings in Bushfire-Prone Areas* (SA 2009) via implementation of increased building construction standards in response to the assessed Bushfire Attack Level (BAL).

With regards to this development proposal, all 12 lots are affected by bushfire prone vegetation and aside from the existing dwelling (within proposed Lot 8) each will require a BAL response in accordance with AS 3959–2009. This is consistent with findings of the WA State Map of Bush Fire Prone Areas. The Method 1 procedure for calculating the BAL (as outlined in AS 3959–2009) incorporates the following factors:

- state-adopted FDI rating
- vegetation class
- slope under classified vegetation
- distance maintained between proposed development areas and the classified vegetation.

Based on the specified BAL, construction/separation requirements for proposed buildings can then be assigned.

2.4.1 Fire Danger Index

A blanket rating of FDI 80 is adopted for Western Australian environments, as outlined in AS 3959–2009 and endorsed by Australasian Fire and Emergency Service Authorities Council.

2.4.2 Vegetation class as per AS 3959–2009

Vegetation class is described in Section 2.2.1 and depicted in Figure 3 and consists of grassland (Class G), woodland (Class B) and forest (Class A). The vegetation class used to determine the BAL rating for each proposed lot is that which is located within 100 m of the proposed building and results in the highest (worst case) BAL rating.

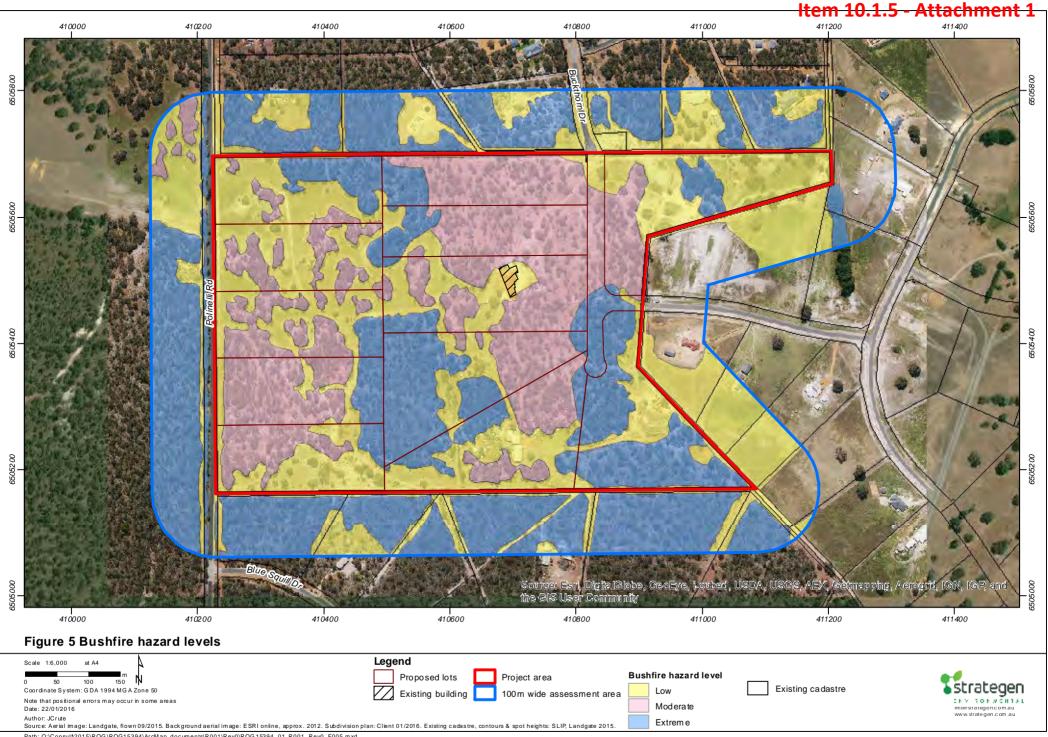
2.4.3 Effective slope under classified vegetation

Effective slope under classified vegetation is described in Section 2.2.2 and depicted in Figure 3. Only forest (Class A), woodland (Class B) and grassland (Class G) areas located central to the site are situated on flat ground. The remainder of the site and adjacent land is subject to a 0-5 degree slope.

2.4.4 Distance between proposed development areas and the classified vegetation

Indicative building envelopes have been located strategically throughout each proposed lot, targeting cleared areas and avoiding forest vegetation where possible. Strategen has assessed the separation distances between indicative building envelopes and the classified vegetation extent, as summarised in Table 1.





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2.4.5 Method 1 BAL calculation

A Method 1 BAL calculation has been completed for each proposed lot in accordance with AS 3959–2009 (Table 1). The BAL rating gives an indication of the level of bushfire attack (i.e. the radiant heat flux) that may be received by the proposed dwelling and subsequently informs the standard of building construction required for that dwelling to withstand such impacts.

Building envelopes of a maximum 2000 m^2 (50 m x 40 m) have been located indicatively to occur in cleared, 'Low' to 'Moderate' bushfire hazard areas of the site. In addition, the level of vegetation clearing to achieve the appropriate hazard separation distances around each proposed dwelling will be minimised by increasing the BAL rating to a set value of BAL 29. The resulting hazard separation distances around each dwelling will be provided in the form of Asset Protection Zones (APZs).

A BAL rating and building construction standard has not been recommended for the existing dwelling within proposed Lot 8 since AS 3959-2009 cannot be applied retrospectively to existing buildings. However, it is still recommended that the existing dwelling achieve minimum separation distance requirements (i.e. 20 m wide APZ) in accordance with the Guidelines.

Proposed lot number	Classified vegetation	Effective slope	Hazard separation distance	BAL rating	Comments/exclusions under AS 3959–2009 Clause 2.2.3.2
1	Forest (Class A) to the north and east	0-5 degrees up-slope	21 m	29	 Forest to the southwest maintains greater than 100 m separation (exclusion). Isolated forest strip along Polinelli Road is less than 20 m wide (exclusion).
2	Woodland (Class B) to the east and west	0-5 degrees down-slope	20 m	29	 Forest to the east and west maintains greater than 100 m separation (exclusion).
3	Forest (Class A) to the southeast	0-5 degrees up-slope	21 m	29	Forest to the west maintains greater than 100 m separation (exclusion).
4	Forest (Class A) to the east	0-5 degrees up-slope	21 m	29	 Forest to the west maintains greater than 100 m separation (exclusion).
5	Forest (Class A) to the south	0-5 degrees down-slope	27 m	29	Forest to the west maintains greater than 100 m separation (exclusion).
6	Forest (Class A) to the north	0-5 degrees up-slope	21 m	29	• Forest to the west maintains greater than 100 m separation (exclusion).
7	Woodland (Class B) in all directions	0-5 degrees down-slope	20	29	• Forest to the southeast maintains greater than 100 m separation (exclusion).
8	Woodland (Class B) in all directions	0-5 degrees down-slope	20	N/A	 Forest to the southeast maintains greater than 100 m separation (exclusion). Building is already constructed and BAL standards cannot be applied retrospectively.
9	Forest (Class A) to the east	0-5 degrees down-slope	27 m	29	N/A
10	Forest (Class A) to the west and east	0-5 degrees down-slope	27 m	29	N/A
11	Forest (Class A) to the west, south and east	0-5 degrees down-slope	27 m	29	N/A
12	Forest (Class A) to the west, south and east	0-5 degrees down-slope	27 m	29	N/A

Table 1: Method 1 BAL calculation



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3. Bushfire management measures

Strategen has identified a range of bushfire management measures that on implementation will enable all proposed lots to be developed whilst maintaining a manageable level of bushfire risk and compliance with the Guidelines. The bushfire management measures are depicted in Figure 6 (where applicable) and discussed in the following subsections.

3.1 Hazard separation distances (APZs)

Strategen has designated areas of hazard separation around each indicative building envelope location in the form of APZs. The width of each dwelling's APZ has been determined on the basis of compliance with a BAL 29 rating under AS 3959–2009, as outlined in Table 1, to demonstrate that bushfire management compliance can be achieved for this site.

The APZs are low fuel areas around each building envelope and are required to be maintained on a regular and ongoing basis at a fuel load less than 2 t/ha to achieve a low threat minimal fuel condition status all year round. Overstorey trees can be retained to some extent within the APZ provided all flammable material including understorey grasses, weeds, shrubs and scrub are removed from the fuel profile, essentially creating a managed parkland cleared landscape, which would result in a diminishing level of radiant heat, ember attack and fire rate of spread at the dwelling interface.

In addition, the initial 5 m of the APZ that directly surrounds the building envelope should consist of a cleared firebreak with 4 m vertical clearance in accordance with the Shire of Chittering Firebreak Notice (Appendix 2). This will ensure no tree crowns overhang any proposed dwellings. Lawns, managed gardens, paving, driveways and swimming pools are also suitable within the APZ. Buildings are not permitted within the APZ.

Hazard Separation Zones (HSZs) are not required around individual lot APZs in this instance, since proposed construction for each proposed dwelling meets the standard appropriate to the BAL for that location and does not exceed BAL 29 (WAPC 2015b).

3.2 Increased building construction standards

Strategen has assigned BAL 29 building construction standards for each proposed dwelling to minimise APZ distances and subsequent impacts on native vegetation, whilst ensuring adequate building protection is afforded throughout the site. BAL 29 is the highest acceptable building construction standard permitted in WA and will provide protection against increasing levels of ember attack and burning debris ignited by windborne embers together with increasing heat flux (i.e. up to 29 kW/m²). The existing dwelling will not be subject to any increased building construction standards under AS 3959-2009.

3.3 Vehicular access

A combination of existing perimeter roads and proposed internal roads will ensure all proposed lots have at least two different vehicular routes to the surrounding public road network, as explained in the following:

- proposed lots 1-5 have frontage with Polinelli Road, which provides two different vehicular access routes (i.e. to the north and south)
- proposed lots 6-12 will have frontage to Buckthorn Drive, which will be extended from the north to
 provide a through access link with Navelina Drive to the east, subsequently creating two different
 vehicular access routes for these proposed lots.

As a precautionary measure, a 6 m wide gravel EAW will be constructed along the internal southern boundary of the project area to link the existing EAW in the east with Polinelli Road to the west. This access route is already partially constructed in the form of a minimum 3 m wide, well maintained gravel firebreak and widening to 6 m is not considered to be a major impost on the development or environment. This will provide an east-west vehicle link for the benefit of the proposed subdivision between Polinelli Road and Navelina Drive, as well as emergency vehicular access along the southern site interface, which is considered to be the highest risk vegetation interface abutting the site. The EAW will require gates (to be kept unlocked at all times) and signage erected at all tenure boundaries. Each respective landowner will be responsible for maintaining the EAW where it occurs on their land, or alternatively, if the Shire prefers, the EAW is to be vested in the Shire and managed by the Shire on an ongoing basis (to be confirmed with the Shire at subdivision).

The abovementioned EAW is considered a suitable and safe vehicular access alternative to the Shire's suggestion to extend Navelina Drive in an east-west direction through the centre of the site to link with Polinelli Road in the west. The Shire's suggested option is not considered to provide a significantly greater bushfire management benefit or outcome for the following reasons:

- the proposed alignment of Navelina and Buckthorn outlined in Figure 1 ultimately links with Polinelli approximately 200 m north of the site, so an additional formal link to Polinelli through the centre of the site will not achieve a significant vehicular access benefit
- the Shire's suggested road extension of Navelina is not formally required in any case since the proposed vehicle access network, as outlined in Figure 1, achieves compliance with acceptable solution A3.1 of the Guidelines
- the EAW proposed as a precaution along the southern site boundary will link EAWs currently constructed east of the site with a western route to Polinelli Road
- the EAW proposed will provide direct access along the southern site boundary and capacity for emergency services to conduct bushfire suppression along this high risk bushland interface.

The small cul-de-sac proposed at the southern end of Buckthorn Drive is not considered a significant vehicle access risk to the proposed subdivision. The cul-de-sac extends 100 m from the intersection with Navelina Drive and services only three lots (Lots 10-12). A selection of battle-axe lots was originally proposed in an earlier subdivision design; however, the cul-de-sac option has been proposed in preference to the previous battle-axe option, as advised by the Shire.

Private driveways will be required for all proposed lots whose dwelling is situated more than 50 m from a public road.

Three metre wide, mineral earth internal perimeter firebreaks with 4 m vertical clearance will be required around the boundary of each proposed lot in accordance with requirements of the Shire of Chittering Firebreak Notice (Appendix 2).

Public roads, the cul-de-sac, EAW and private driveways proposed as part of the subdivision will need to comply with technical requirements of the Guidelines, as outlined in Table 2.



Bushfire Management Plan

Technical requirement	Public road	Cul-de-sac	Private driveway	EAW
Minimum trafficable surface (m)	6*	6	4	6*
Horizontal distance (m)	6	6	6	6
Vertical clearance (m)	4.5	N/A	4.5	4.5
Maximum grade <50 m	1 in 10	1 in 10	1 in 10	1 in 10
Minimum weight capacity (t)	15	15	15	15
Maximum crossfall	1 in 33	1 in 33	1 in 33	1 in 33
Curves minimum inner radius	8.5	8.5	8.5	8.5

 Table 2: Vehicular access technical requirements

* Refer to E3.2 Public roads: Trafficable surface

Source: WAPC 2015b

3.4 Emergency water supply

The project area is not connected to mains water supply. Consequently, all proposed lots will each require installation of a minimum 120 kL rainwater tank, as required by the Shire's Water Supply and Drainage Policy, to meet both minimum domestic and fire fighting water volume requirements. For each tank, a minimum 10 kL will be required to be reserved for fire fighting purposes at all times. This will ensure that across the 12 lot subdivision, a minimum of 120 kL will be reserved for fire fighting purposes at all times, which will exceed the 50 kL volume requirement as outlined in the Guidelines.

Each rainwater tank will be constructed on a hardstand area adjacent to the dwelling and equipped with a suitable hydrant or standpipe with diesel pump and 20 mm hose reel, which will enable an independent onsite fire suppression capability at each dwelling.

In addition, all rainwater tanks are to be fitted with 50 mm male camlock couplings with full flow valves in accordance with 'Category C Domestic Water Tanks in Bush Fire Prone Areas', as outlined in the Coupling Standard for Static Water Supplies to enable quick refill for fire appliances. Prospective landowners will be responsible for constructing and maintaining the water tanks.

3.5 Additional measures

Strategen makes the following recommendations for additional bushfire management measures to inform ongoing planning stages of the development and increase the level of bushfire risk mitigation across the site:

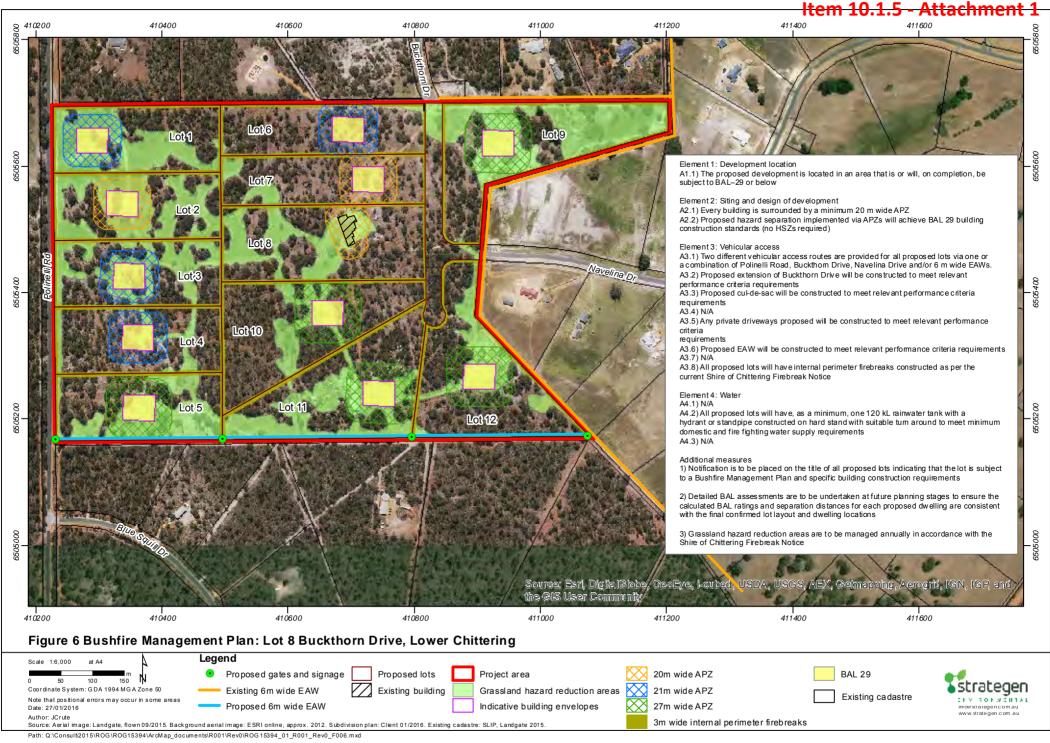
- <u>Notification on Title</u>: Strategen recommends that a notification on title be placed on all proposed lots as a condition of subdivision to ensure all landowners/proponents and prospective purchasers are aware that their lot is in a designated bushfire prone area and that increased building construction standards will apply to future buildings. The notification on title is also to include that the site is subject to a Bushfire Management Plan.
- 2. <u>BAL assessment at future planning stages</u>: Management measures currently proposed at the individual dwelling scale (i.e. BAL ratings and APZs) are based on indicative lot and building envelope locations that may change to accommodate site opportunities and constraints other than fire. Consequently, Strategen recommends that as planning for the proposed development progresses and proposed lot boundaries and building envelope locations are confirmed, detailed BAL assessments be undertaken for each proposed lot to ensure the final BAL ratings and separation distances calculated are consistent with the final confirmed lot layout and dwelling locations. The building licence stage may be an appropriate time for this assessment to occur.



Bushfire Management Plan

3. <u>Grassland hazard reduction</u>: In accordance with the Shire's Firebreak Notice (Appendix 2), all property owners are required to reduce fire hazards on their property prior to the summer season by maintaining grassed areas as far as reasonably practicable, to 50 mm in height over the entire area, by slashing or the application of stock. It is recommended that property owners program their hazard reduction in conjunction with the clearing and maintenance of firebreaks. Hazard reduction orders will be issued by the Shire where landowners have failed to reduce fire hazards. All slashing and mowing of cured grasses must be completed by 16 October. Should any maintenance slashing or mowing be required, it must be carried out during cooler times of the day (e.g. early morning or late afternoon). Slashing and mowing must not be carried out on days of very high fire danger and above or when a total fire ban is in place.





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4. Proposal compliance and justification

Proposed development within Lot 8 Buckthorn Drive is required to comply with SPP 3.7 and the Guidelines, as required under the following policy measures:

6.2 Strategic planning proposals, subdivision and development applications

a) Strategic planning proposals, subdivision and development applications within designated bushfire prone areas relating to land that has or will have a Bushfire Hazard Level (BHL) above low and/or where a Bushfire Attack Level (BAL) rating above BAL-LOW apply, are to comply with these policy measures.

b) Any strategic planning proposal, subdivision or development application in an area to which policy measure 6.2 a) applies, that has or will, on completion, have a moderate BHL and/or where BAL-12.5 to BAL-29 applies, may be considered for approval where it can be undertaken in accordance with policy measures 6.3, 6.4 or 6.5.

c) This policy also applies where an area is not yet designated as a bushfire prone area but is proposed to be developed in a way that introduces a bushfire hazard, as outlined in the Guidelines. <u>6.3 Information to accompany strategic planning proposals</u>

Any strategic planning proposal to which policy measure 6.2 applies is to be accompanied by the following information prepared in accordance with the Guidelines:

a) (i) the results of a BHL assessment determining the applicable hazard level(s) across the subject land, in accordance with the methodology set out in the Guidelines. BHL assessments should be prepared by an accredited Bushfire Planning Practitioner; or

a) (ii) where the lot layout of the proposal is known, a BAL Contour Map to determine the indicative acceptable BAL ratings across the subject site, in accordance with the Guidelines. The BAL Contour Map should be prepared by an accredited Bushfire Planning Practitioner; and

b) the identification of any bushfire hazard issues arising from the relevant assessment; andc) clear demonstration that compliance with the bushfire protection criteria in the Guidelines can be achieved in subsequent planning stages.

This information can be provided in the form of a Bushfire Management Plan or an amended Bushfire Management Plan where one has been previously endorsed.

Implementation of this BMP is expected to meet the following objectives of SPP 3.7:

5.1 Avoid any increase in the threat of bushfire to people, property and infrastructure. The

preservation of life and the management of bushfire impact are paramount.

5.2 Reduce vulnerability to bushfire through the identification and consideration of bushfire risks in decision-making at all stages of the planning and development process.

5.3 Ensure that higher order strategic planning documents, strategic planning proposals, subdivision and development applications take into account bushfire protection requirements and include specified bushfire protection measures.

5.4 Achieve an appropriate balance between bushfire risk management measures and, biodiversity conservation values, environmental protection and biodiversity management and landscape amenity, with consideration of the potential impacts of climate change.

In response to the above requirements of SPP 3.7 and the Guidelines, bushfire management measures, as outlined in Section 3, have been devised for the proposed development in accordance with Guideline acceptable solutions to meet compliance with bushfire protection criteria. An 'acceptable solutions' assessment is provided in Table 3 to assess the proposed bushfire management measures against each bushfire protection criteria in accordance with the Guidelines and demonstrate that the measures proposed meet the intent of each element of the bushfire protection criteria.



Bushfire Management Plan

Bushfire protection criteria	Intent	Acceptable solutions	Proposed bushfire management measures	Compliance statement
Element 1: Location	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	A1.1 Development location The strategic planning proposal, subdivision and development application is located in an area that is or will, on completion, be subject to either a moderate or low bushfire hazard level, or BAL–29 or below.	Refer to Section 3.2, which demonstrate that all proposed building envelopes will be strategically located in existing cleared or degraded areas where possible to ensure a rating of BAL 29 is achieved.	The measures proposed are considered to comply and meet the intent of Element 1 Location.
Element 2: Siting and design of development	To ensure that the siting and design of development minimises the level of bushfire impact	A2.1 Asset Protection Zone Every building is surrounded by an APZ, depicted on submitted plans, which meets detailed requirements (refer to the Guidelines for detailed APZ requirements).	Refer to Section 3.1, which demonstrates that all proposed building envelopes will be sited and designed to ensure minimum 20 m wide APZs are achieved.	The measures proposed are considered to comply and meet the intent of Element 2 Siting and design of development
		A2.2 Hazard Separation Zone Every building and its contiguous APZ is surrounded by an HSZ, depicted on submitted plans, that meets detailed requirements (refer to the Guidelines for detailed HSZ requirements). An HSZ may not be required if the proposed construction meets the standard appropriate to the BAL for that location, and does not exceed BAL–29.	HSZs are not proposed since individual dwelling construction meets the standard appropriate to the BAL for that location, and does not exceed BAL–29.	
Element 3: Vehicular access	To ensure that the vehicular access serving a subdivision/development is available and safe during a bushfire event	A3.1 Two access routes Two different vehicular access routes are provided, both of which connect to the public road network, provide safe access and egress to two different destinations and are available to all residents/the public at all times and under all weather conditions.	Refer to Section 3.3, which demonstrates that two access routes will be achieved for all proposed lots through a combination of existing perimeter roads, proposed internal roads and a proposed EAW.	The measures proposed are considered to comply and meet the intent of Element 3 Vehicular access
		A3.2 Public road A public road is to meet the requirements in Table 2, Column 1.	Refer to Section 3.3, which demonstrates that all proposed public roads will meet minimum requirements outlined in Table 2.	
		A3.3 Cul-de-sac (including a dead-end-road) A cul-de-sac and/or a dead end road should be avoided in bushfire prone areas. Where no alternative exists (i.e. the lot layout already exists and/or will need to be demonstrated by the proponent), detailed requirements will need to be achieved (refer to the Guidelines for detailed cul-de- sac requirements).	Refer to Section 3.3, which demonstrates that the proposed cul-de-sac was a preferred option by the Shire and will meet minimum requirements outlined in Table 2.	
		A3.4 Battle-axe Battle-axe access leg should be avoided in bushfire prone areas. Where no alternative exists, (this will need to be demonstrated by the proponent) detailed requirements will need to be achieved (refer to the Guidelines for detailed battle-axe requirements).	N/A No battle-axe lots are proposed as part of the development.	

Table 3: Acceptable solutions assessment against bushfire protection criteria

ROG15394_01 R001 Rev 0



Bushfire Management Plan

		A3.5 Private driveway longer than 50 m A private driveway is to meet detailed requirements (refer to the Guidelines for detailed private driveway requirements).	Refer to Section 3.3, which demonstrates that any private driveways longer than 50 m will meet minimum requirements outlined in Table 2.	
		A3.6 Emergency access way An access way that does not provide through access to a public road is to be avoided in bushfire prone areas. Where no alternative exists (this will need to be demonstrated by the proponent), an emergency access way is to be provided as an alternative link to a public road during emergencies. An emergency access way is to meet detailed requirements (refer to the Guidelines for detailed EAW requirements).	An EAW is not formally required by the proposed subdivision to meet compliance, but is rather being proposed as an additional measure to heighten the vehicle access provisions for future users. Refer to Section 3.3, which demonstrates that the proposed EAW will meet minimum requirements outlined in Table 2.	
		A3.7 Fire service access routes (perimeter roads) Fire service access routes are to be established to provide access within and around the edge of the subdivision and related development to provide direct access to bushfire prone areas for fire fighters and link between public road networks for fire fighting purposes. Fire service access routes are to meet detailed requirements (refer to the Guidelines for detailed fire service access route requirements).	N/A No fire service access routes are proposed as part of the development.	
		A3.8 Firebreak width Lots greater than 0.5 hectares must have an internal perimeter firebreak of a minimum width of three metres or to the level as prescribed in the local firebreak notice issued by the local government	Refer to Section 3.3, which demonstrates that all proposed lots will have minimum three metre wide mineral earth firebreaks constructed along the internal lot perimeter in accordance with the Shire of Chittering Firebreak Notice.	
Element 4: Water	To ensure that water is available to the subdivision, development or land use to enable people, property and infrastructure to be defended from bushfire.	A4.1 Reticulated areas The subdivision, development or land use is provided with a reticulated water supply in accordance with the specifications of the relevant water supply authority and Department of Fire and Emergency Services.	N/A A reticulated water supply will not be provided for the proposed development.	The measures proposed are considered to comply and meet the intent of Element 4 Water
		A4.2 Non-reticulated areas Water tanks for fire fighting purposes with a hydrant or standpipe are provided and meet detailed requirements (refer to the Guidelines for detailed requirements for non-reticulated areas)	Refer to Section 3.4, which demonstrates that all proposed lots will be required to construct a 120 kL rainwater tank as a minimum, on appropriate hardstand with suitable hydrant or standpipe provisions.	
		A4.3 Individual lots within non-reticulated areas (Only for use if creating 1 additional lot and cannot be applied cumulatively) Single lots above 500 square metres need a dedicated static water supply on the lot that has the effective capacity of 10 000 litres.	N/A The proposed development will create a total of 11 additional lots, so this acceptable solution is not applicable in this instance.	



5. Implementation and enforcement

Implementation of the BMP applies to the developer, local government and prospective landowners to ensure bushfire management measures are adopted and implemented on an ongoing basis. A summary of the bushfire management measures described in Section 3, as well as a works program, is provided in Table 4. These measures will be implemented to ensure the ongoing protection of proposed life and property assets is achieved. Timing and responsibilities are also defined to assist with implementation of each measure.

Bushfire management measure	Timing for application	Responsibility
Creation of APZs	Prior to construction of proposed dwellings	Developer during development, prospective landowners thereafter
Maintenance of APZs	Following creation of APZ and as required to achieve 2 t/ha fuel threshold all year round	Developer during development, prospective landowners thereafter
Implementation of increased building construction standards	During construction of proposed dwellings	Builder, prospective landowners
Construction of public roads and cul- de-sac	Following subdivision approval and prior to construction of proposed dwellings	Developer
Construction of EAW, gates and signage	Following subdivision approval and prior to construction of proposed dwellings	Developer
Construction of private driveways	Prior to construction of proposed dwellings	Developer
Construction of firebreaks	Following subdivision approval	Developer
Maintenance of firebreaks	As required in accordance with the Shire of Chittering Firebreak Notice	Prospective landowners
Construction of 120 kL rainwater tanks and associated emergency water supply infrastructure	During construction of proposed dwellings	Builder, prospective landowners
Notification on Title	Following subdivision approval	Developer
Detailed BAL assessment	Prior to construction of proposed dwellings	Developer
Grassland fuel hazard reduction	Following subdivision approval	Developer during development, prospective landowners thereafter

Table 4: Proposed works program

5.1 Document review

This BMP will be updated as necessary following the date of approval to ensure:

- 1. Implementation is assessed and corrective actions are applied in cases of non-compliance.
- 2. The effectiveness and impact of fire prevention work is evaluated and any significant changes in development design or the surrounding environment are reassessed in a revised BMP.

The developer will be responsible for updating and revising the BMP until such time that the development is complete, after which the Shire will be the authority responsible for updating and revising the BMP.

5.2 Stakeholder consultation

Strategen has undertaken consultation with the landowner, planner and addressed Shire comments to ensure aims and objectives of the BMP are in accordance with stakeholder expectations and the BMP maintains compliance with the Guidelines.



6. References

- Bureau of Meteorology (BoM) 2016, *Climate statistics for Australian locations: Monthly climate statistics for Pearce RAAF*, [Online], Commonwealth of Australia, available from: http://www.bom.gov.au/climate/averages/tables/cw_009053.shtml, [22/01/2016].
- Commonwealth Science and Industrial Research Organisation (CSIRO) 1999, *Fire Danger and Fire Spread Calculator*, Commonwealth Science and Industrial Research Organisation, Perth.
- Department of Fire and Emergency Services (DFES) 2016, *Map of Bush Fire Prone Areas*, [Online], Government of Western Australia, available from: *http://www.dfes.wa.gov.au/regulationandcompliance/bushfireproneareas/Pages/default.aspx*, [21/01/2016].
- Mattiske Consulting 1998, Mapping of Vegetation Complexes in the South West Forest Region of Western Australia, Department of Conservation and Land Management, Perth.
- McCaw L and Hanstrum B 2003, 'Fire environment of Mediterranean south-west Western Australia', in *Fire in Ecosystems of South-West Western Australia: Impacts and Management*, eds I Abbott & ND Burrows, Backhuys Publishers, Leiden, Netherlands, pp. 171–188.
- Rowe Group 2015, Scheme Amendment Request: Lot 8 (No. 100) Buckthorn Drive Lower Chittering, report prepared for Mr and Mrs Braidwood, December 2015.
- Shire of Chittering 2010, Local Biodiversity Strategy, report prepared for Shire of Chittering, April 2010.
- Standards Australia (SA) 2009, Australian Standard AS 3959–2009 Construction of Buildings in Bushfireprone Areas, Standards Australia, Sydney.
- Western Australian Planning Commission (WAPC) 2015a, State Planning Policy 3.7 Planning in Bushfire-Prone Areas, Western Australian Planning Commission, Perth.
- Western Australian Planning Commission (WAPC) 2015b, *Guidelines for Planning in Bushfire-Prone Areas*, Western Australian Planning Commission, Perth.



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Appendix 1 January wind profiles for Pearce RAAF

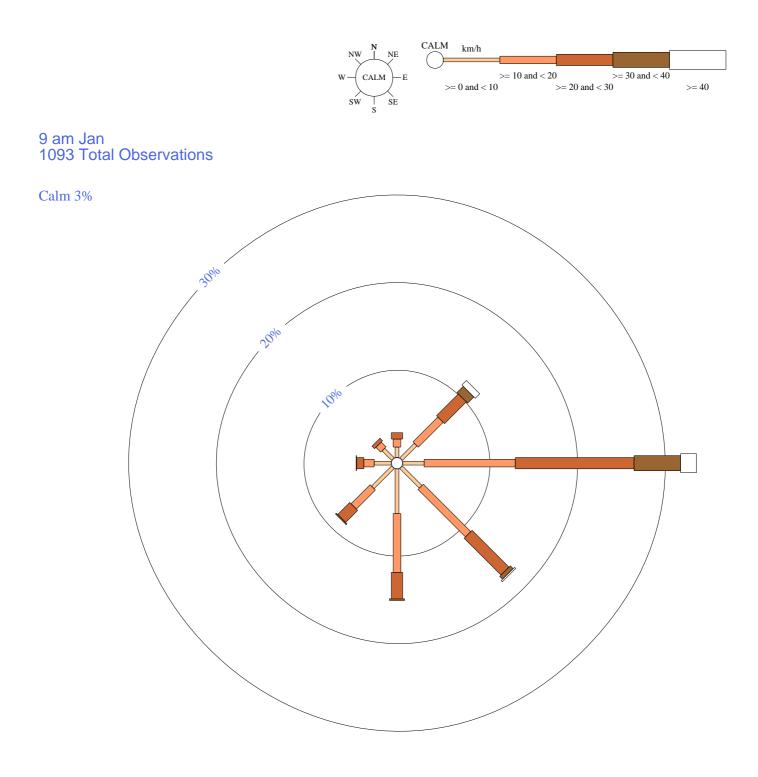
Rose of Wind direction versus Wind speed in km/h (02 Nov 1940 to 31 Oct 2011) Custom times selected refer to attached note for details

PEARCE RAAF

Site No: 009053 • Opened Jan 1937 • Still Open • Latitude: -31.6669° • Longitude: 116.0189° • Elevation 40m

An asterisk (*) indicates that calm is less than 0.5%.

Other important info about this analysis is available in the accompanying notes.







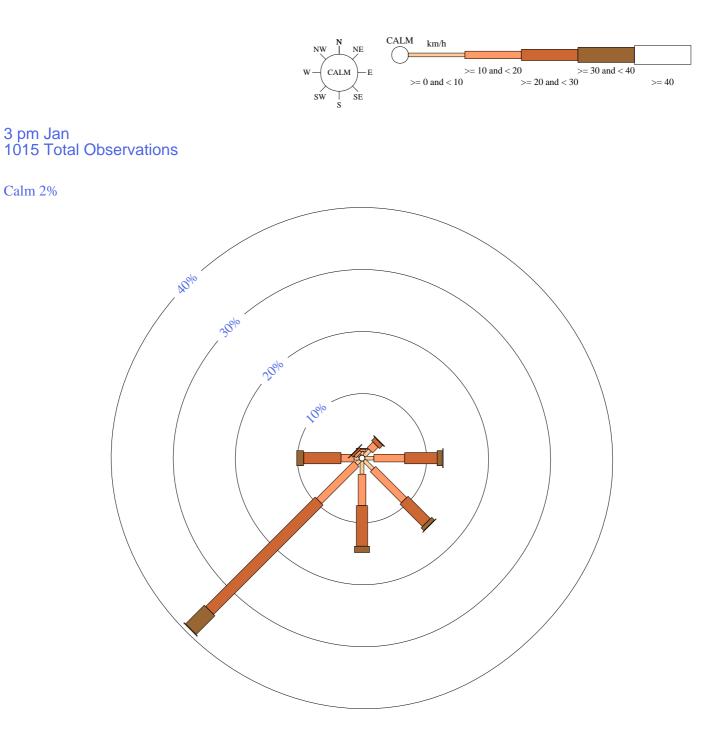
Rose of Wind direction versus Wind speed in km/h (02 Nov 1940 to 31 Oct 2011) Custom times selected refer to attached note for details

PEARCE RAAF

Site No: 009053 • Opened Jan 1937 • Still Open • Latitude: -31.6669° • Longitude: 116.0189° • Elevation 40m

An asterisk (*) indicates that calm is less than 0.5%.

Other important info about this analysis is available in the accompanying notes.







Appendix 2 Shire of Chittering Firebreak Notice



FIREBREAK NOTICE

2015 - 2016 Shire of Chittering

FOR ALL FIRES CALL

THIS FIREBREAK NOTICE CONTAINS IMPORTANT INFORMATION, PLEASE READ IT CAREFULLY AND STORE IN A SAFE PLACE FOR FUTURE REFERENCE.

FOR FURTHER INFORMATION ON THIS NOTICE CONTACT THE SHIRE OF CHITTERING Phone: 9576 4600 Fax: 9576 1250 Email: chatter@chittering.wa.gov.au

Website: www.chittering.wa.gov.au

FIREBREAK NOTICE Item 10.1.5 - Attachment

BUSH FIRES ACT 1954 Shire of Chittering



Notice to all owners and/or occupiers of land situated in the Shire of Chittering.

As a measure to assist in the control of bush fires, or prevent the spread or extension of a bush fire which may occur, all owners and occupiers of land within the shire's district are required before the 16th day of October in each year, or within 14 days of becoming the owner or occupier of land if after that date, to clear firebreaks or take measures in accordance with this notice and maintain those firebreaks and measures in accordance with this notice up to and including the 31st day of May in the following year.

Pursuant to the powers contained in Section 33 of THE BUSH FIRES ACT 1954, you are hereby required to clear all flammable material from fire breaks, not less than 3 metres in width and 4 metres vertically, immediately inside all external boundaries of any lot owned or occupied by you and situated within the Shire of Chittering. Such firebreaks may be constructed by one or more of the following methods:

Ploughing, cultivating, scarifying, raking, burning, chemical spraying or other approved method, to allow for total weed and grass elimination apply first spray in July. Firebreaks may require more than one spray.

The following land categories are to be cleared and maintained to the satisfaction of an Authorised Officer of the Shire.

Rural Residential and Shire Town sites with land with less than 2 hectares Do not require boundary firebreaks but are required to follow General Fire Hazard Reduction.

All properties, including Rural Residential and Shire Town sites with land equal to or greater than 2 hectares

Must clear a firebreak of all flammable materials three (3) metres wide, with a four (4) metre vertical clearance along the inside of the boundary to the property.

Land greater than 120 hectares

Land with an area of 120 hectares or more must have a firebreak in such a position which divides the land into areas not exceeding 120 hectares.

Fire Management Plans

Where Fire Management Plans have been implemented as part of a subdivision, property owners must ensure their property meets the requirements as outlined in the Fire Management Plan. Property owners should seek clarification from the Shire of Chittering if they are unsure in regards to their responsibilities and the requirements contained within their Fire Management Plan and this Firebreak Notice.



Buildings, haystacks and fuel storadtem 10.1.5 - Attachment 1

Clear a firebreak, not less than five (5) metres wide with a four (4) metre vertical clearance completely surrounding and not more than twenty (20) metres from the perimeter of all buildings, haystacks and fuel storage areas within the property.

General Fire Hazard Reduction

30N HAZARD SEPARATION ZONE **BUILDING PROTECTION ZONE** No Buildings · 20m around all primary buildings Maintain Bushfire Fuels Bush and grass maximum -20m 200 to 4-6t/ha height somm 30M • 5m clear flammable material 30M around all buildings · All log and tree debris removed · Branches which may fall on buildings removed Trees must be 15m apart · Wood heaps, storage of paints, petrol etc 10m from buildings 30M Minor outbuildings BUILDING PROTECTION & HAZARD SEPARATION ZONES

Installation of a building protection zone

- A Building Protection Zone of 20 metres is to be constructed within the Lot around all buildings as follows:
- Bush Fire fuels to be maintained at or below 2 tonnes per hectare and dry grass must be maintained below a height of 50mm;
- The first 5m around all buildings is to be cleared of all flammable material. Reticulated gardens may be located in this zone;
- The spacing of trees should be 15-20 metres apart to provide for a separation of 10 metres between crowns;
- Trees are to be under/low pruned at least to a height of 2 metres;
- No tall shrub or tree is to be planted within 2 metres of a building including windows.



Alternative firebreaks

Item 10.1.5 - Attachment 1

If it is impractical for you to clear a firebreak along your boundary you can request permission from the Shire to install a firebreak in an alternative location or of a different nature. All requests must be in writing to the Shire and received by 1 October.

Harvesting operations (including stubble processing)

The Shire will permit harvesting operations, including stubble processing, during the Restricted and Prohibited period on the following conditions:

- That a fully operational fire fighting unit (inclusive of associated pump, hose system and a minimum of 600 litres of water is present) at all times.
- Harvesting operations, and stubble processing, are not permitted when the Shire has declared a Harvest and Vehicle Movement Ban, including Hot Works Activities.

Harvesting operations (including stubble processing) on Sunday and Public Holidays, excepting Christmas Day, Boxing Day and New Year's Day, will be permitted on the following conditions, in addition to the conditions above

- The Local Fire Control Officer is notified.
- Two (2) able-bodied adult persons are present during the harvesting operations, only one (1) of whom may be harvesting.





Control of operations likely to cause tema 10.1.5 - Attachment 1

Property owners should take care to prevent bush fires. The operation of welding equipment and angle grinders are activities likely to create a fire danger when used in the open air.

A person shall provide at least one fire extinguisher at the place where welding or cutting operations are carried out and surround this place with a firebreak which is at least five (5) metres wide.

For updates on Hot Works, Harvest and Movement of Machinery Bans please ring the information line on: 9576 0219 (recorded message) or register with the SMS warning system with the Shire to receive a text when a ban is implemented.

HOT WORKS, HARVEST AND MOVEMENT OF MACHINERY BAN WILL BE IN PLACE ON CHRISTMAS, BOXING DAY AND NEWS YEARS DAY

Fire Danger Rating

No fire of any kind may be lit on a day when the forecast Fire Danger rating for the District is very high or above. The fire danger rating is supplied daily by the Bureau of Meteorology.

This information is also available from the Telstra Weather service on Ph: 1196, the Bureau of Meteorology website (www.bom.gov.au) and is displayed on the information boards located (1) Great Northern Highway, Muchea, (2) John Glenn Park, Muchea (3) Cnr Wandena and Muchea East Road Lower Chittering, (4) Clune Park, Bindoon, (5) Cnr Crest Hill Road & Mooliabeenee Road, Bindoon. The Chittering fire weather district is the Lower West Inland.





Burning of garden refuse

Item 10.1.5 - Attachment 1

Garden refuse must not be burnt at any time during the PROHIBITED burning period or at any time if a total fire ban or a harvest and vehicle movement ban has been declared or at any time if the fire danger rating is very high or above.

A permit is required to burn garden refuse before 6pm during the RESTRICTED Burning Periods, and is subject to the conditions as set out on the permit.

Garden refuse may be burnt without a permit after 6pm during the RESTRICTED burning periods, subject to the following conditions of THE BUSH FIRE ACT 1954 and the HEALTH ACT 1911.

- You notify your neighbours and local Fire Control Officer of your intention to burn.
- The pile of refuse being burnt does not exceed (1m x 1m x 1m).
- A 5 metre wide area clear of flammable material surrounds the pile. (Lawn, Paths, Driveways, etc. may be considered as cleared area).
- The fire is only lit between 6pm and 11pm.
- Only 1 pile is to be alight at one time.
- The fire is completely extinguished by midnight.
- At least 1 adult person is in attendance at all times.
- There is a means of extinguishing the fire available at all times. (e.g. garden hose, knapsack spray or fire unit).
- The smoke from your fire does not cause a nuisance to neighbours.
- The smoke from your fire does not create a traffic hazard.
- Do not burn household or commercial waste or any noxious materials.
- Do not burn damp, wet or green material at any time as this will cause excessive smoke.
- Other than during the RESTRICTED or PROHIBITED periods, garden refuse may be burnt at any time, but care must be exercised.
- Smoke from the burning of garden rubbish can cause nuisance and annoyance to other residents. Please consider this and plan to minimise smoke.

Fire breaks



Local Bush Fire Control Officer	^{rs} Item 10.1.5 - A	ttachmant 1
LOWER CHITTERING	item 10.1.5 - A	
Steve Browne Max Brown		0427 300 964 0427 089 677
MUCHEA		
Arthur Blewitt Peter Hall		0407 382 376 0437 908 079
UPPER CHITTERING		
Gordon Carter David Wilson	9576 0902	0429 784 831 0412 716 577
Phil Humphry (DCBFCO Central)	9576 1050	0427 761 050
BINDOON		
Fred Hoogland Dennis Badcock	9576 0131 9576 1536	0422 228 415 0428 947 853
WANNAMAL		
Kim Haeusler Greg Cocking DCBFCO (North)	9655 9043 9655 7015	0428 559 043 0408 900 462
COMMUNITY EMERGENCY SERV CHIEF BUSH FIRE CONTROL OFF		
Jamie O'Neill	9576 4600	0409 529 138
DEPUTY CHIEF (SOUTH)	1	States 11
Ian Hollick	9571 8388	0427 489 287
DEPUTY CHIEF (CENTRAL)	1.1	
Phil Humphry	9576 1050	0427 761 050
DEPUTY CHIEF (NORTH)		ALC: SYST
Greg Cocking	9655 7015	0408 900 462
SHIRE FIRE CONTROL OFFICERS		The second second
Rangers	9576 4600	14.14

HOT WORKS, HARVEST AND MOVEMENT OF MACHINERY BANS INFORMATION LINE 9576 0219 www.facebook.com/chittering.shire www.chittering.wa.gov.au

NOTE:

Fire Control Officers are not obliged to issue permits and they may advise on alternatives to burning. Please remember Fire Control Officers are Volunteers and their availability to issue permits may vary, assist them by planning in advance. Permits cannot be issued over the phone and should a Fire Control Officer refuse to issue a permit, it is a breach of the Act to request a permit from another Fire Control Officer.

Restricted and Prohibited burning tem 10.1.5 - Attachment 1

Lighting fires on your property can be extremely dangerous. To help reduce the risk, PROHIBITED and RESTRICTED burning times are set according to seasonal conditions and may be adjusted. These dates indicate when you are required to seek a Burning Permit and when lighting fires is prohibited. There is a requirement to notify neighbours of a planned burn.

Restricted and Prohibited Burning Periods

Burning is prohibited from 1 DECEMBER TO 31 MARCH.

Permits are required from 19 OCTOBER TO 30 NOVEMBER and 1 APRIL TO 31 MAY.

The following restrictions apply throughout Restricted and Prohibited periods

- No burning on Sundays and Public Holidays
- No burning of garden refuse
- No lighting of camp fires or solid fuel BBQs , wood fired pizza ovens, or any uncontrolled flame in the open air in the Shire of Chittering
- Burning of road side verges is prohibited without written approval from the Shire of Chittering or other authorities.

Dates to remember

FIREBREAKS MUST BE CLEARED BY 16 OCTOBER AND REMAIN CLEARED UNTIL 31 MAY

> BURNING IS PROHIBITED BETWEEN 1 DECEMBER TO 31 MARCH

BURNING PERMITS ARE REQUIRED BETWEEN 19 OCTOBER TO 30 NOVEMBER AND 1 APRIL TO 31 MAY

BURNING IS PROHIBITED ON ANY DAY WHEN THE FIRE DANGER INDEX REACHES VERY HIGH, SEVERE, EXTREME OR CATASTROPHIC OR A TOTAL FIRE BAN HAS BEEN DECLARED.

Penalties

FAILURE TO COMPLY WITH THIS FIREBREAK NOTICE CAN RESULT IN FINES RANGING FROM \$250 TO \$250,000 OR IMPRISONMENT.

CAUTION: RESTRICTED AND PROHIBITED PERIODS ARE SUBJECT TO SEASONAL CHANGES, IF IN DOUBT CONTACT THE SHIRE 9576 4600

FOR FURTHER INFORMATION ON THIS NOTICE CONTACT THE SHIRE OF CHITTERING

Phone: 9576 4600 Fax: 9576 1250 Email: chatter@chittering.wa.gov.au

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SHIRE OF CHITTERING

TOWN PLANNING SCHEME No. 6

AMENDMENT No. 58

The Shire of Chittering under and by virtue of the powers conferred upon it by the Planning and Development Act 2005, hereby amends the above Town Planning Scheme by:

1. Modifying the Scheme Maps by introducing the Rural Residential zone over Lot 8 Buckthorn Drive, Lower Chittering.

ADOPTION

CHIEF EXECUTIVE OFFICER

MAYOR

FINAL APPROVAL

ADOPTED for Final Approval by resolution of the Shire of Chittering at the Ordinary Meeting of the Council held on the day of 20....... 20....... and the Seal of the Municipality was, pursuant to that resolution, hereunto affixed in the presence of:-

CHIEF EXECUTIVE OFFICER

MAYOR

Recommended/Submitted for Final Approval by the Western Australian Planning Commission:

Delegated under s.16 of the P&D Act 2005

Final Approval Granted

MINISTER FOR PLANNING

..... DATE

Created 16/03/16

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	Agency Submissions	nissions	
Submitter	Comment	Proponent Response	Shire Officer Response
Department of Environment Regulation	DER has no comment on the amendment in reference to regulatory responsibilities under the <i>Environment Protection Act 1986</i> and the <i>Contaminated Sites Act 2003</i> .		Noted
Water Corporation	Thank you for your letter dated March 18, 2016. The Water Corporation advises the Shire that the proposal is remote from the Corporation's water and wastewater services.		Noted
Department of Parks and Wildlife	I refer to your letter of 18 March 2016 requesting comments on the proposed scheme amendment mentioned above. The department provides the following advice: Insufficient information has been supplied to determine the environmental impact of the proposed amendment and subsequent subdivision. The department has records of nine threatened flora subdivision. The department has records of nine threatened flora species and 26 priority flora species within a 10km radius of the subject site and an appropriately timed flora survey is required to determine whether these species are also located at this site and if they will be impacted by the works. Parks and Wildlife is also concerned that the subject area may contain breeding, roosting and feeding habitat for Baudin's cockatoo (vulnerable) red-tailed cockatoo (vulnerable) and for Carnaby's cockatoo (Endangered), which are protected under the <i>Environment Protection and Biodiversity Conservation Act 1999</i> (EPBC Act) The proponent should be made aware that if it is likely that the proposed development may result in one or more of the following: clearing of any known nesting tree, clearing of any known nesting tree, clearing of any part or degradation of breeding habitat, or clearing of more than 1 hectare of guality foraging habitat, or clearing of more than 1 hectare of guality foraging habitat, or clearing of more than 1 hectare of guality foraging habitat, or clearing of more than 1 hectare of guality foraging habitat, or clearing of more than 1 hectare of guality foraging habitat, or clearing of more than 1 hectare of guality foraging habitat, or clearing of more than 1 hectare of guality foraging habitat, or clearing of more than 1 hectare of guality foraging habitat, or clearing of more than 1 hectare of guality foraging habitat, or clearing of more than 1 hectare of guality for a suck of more than 1 hectare of guality for a suck of more than 1 hectare of guality for a suck of more than 1 hectare of guality for a suck of more than 1 hectare of guality for a suck of	We note that a Structure Plan will be required prior to any subdivision or development of the property. In preparing the Structure Plan for the site, an Environmental Consultant will be engaged to undertake necessary environmental assessments/investigations on the site. The assessments/investigations are likely to include the following: - a Fauna and Flora Spring Survey; - a Black Cockatoo Habitat Assessment; and - other environmental investigations for the site. Based on the results of the environmental investigations, the subdivision design and building envelope locations for the site may be altered accordingly to ensure that minimal adverse impacts will occur to the existing vegetation at the site we do not believe that a Scheme Amendment of this nature requires referral to the Commonwealth for assessment.	The applicant has confirmed the study will be undertaken, however at the structure plan stage. To uphold this matter, the WAPC have recommended that a Structure Plan be required as part of the Scheme Amendment process. This would occur through the creation of a Schedule. Thereunder the Schedule would require the investigation and compliance with DPAW's requirements and standards.
	 clearing or degradation (including pruning the top canopy) of a known roosting site, then the proposal should be referred to the Commonwealth for assessment under the EPBC Act as it is likely to significantly impact upon a matter of national environmental significance. 	We also note that it is not yet confirmed whether nationally significant vegetation is present at the site and therefore a referral to the Commonwealth should be decided upon completion of a Black Cockatoo Habitat	

	Agency Submissions	issions	
		Assessment.	
	The "EPBC Act Referral guidelines for three threatened black cockatoo species: Carnaby's cockatoo, Baudin's cockatoo and Forest red-tailed black cockatoo" (DSEWPaC 2012) provides further information on this requirement.		
Ellen Brockman Integrated Catchment	The Ellen Brockman Integrated Catchment Group in collaboration with the Chittering Landcare Group has reviewed the above proposed	With respect to point 1 we note the following: - A Structure Plan will be required prior to	Water retention, storage and drainage are justified concerns which the
Group	scheme amendment and makes the following comments.	any subdivision or development can occur at the site.	applicant will be required to uphold at the structure plan stage.
	1. The site contains areas of Mogumber vegetation complex in good	- A detailed environmental assessment of the	
	a recommendation of the Shire of Chittering Local Biodiversity	Complex is in good condition at the site.	
	Strategy. The western half of the site is a part of a local linkage	- Based upon the environmental assessments	
	within the Strategy. The "Indicative Subdivision Map" (to use the	to be completed for the site, the proposed	
	of these issues with property boundaries bisecting the best	will be finalised.	
	bushland areas. When firebreaks are constructed along those	- Further investigation will also be	
	boundaries or building envelopes cleared, significant amounts of	undertaken by an environmental	
	vegetation will be destroyed or subjected to possible infection	consultant, however consideration was	
	with phytophthora dieback. The proposed subdivision plan shows	to the topography of the sit	
	no understanding of the vegetation quality, the topography of the site or sensitive design. If this amendment is approved, there	the completion of the Bushfire Management Plan which was included as	
	are many reasons for reviewing the subdivisional plan. These	part of the Scheme Amendment.	
	include topography, drainage, bushfire risk and protection of	With respect to point 2, we note the following:	
	natural vegetation that forms part of a local corridor		
	2. The report indicates that direct entry onto Polinelli Road for fire	to Polinelli Road	
	lots is proposed. Crossovers have aiready been installed for these entries and apart from being eventionally dangerous acress for	emergency Tire access and that no	
	the two lots to the south east they would now require removal of	proposed lots; and	
	vegetation in the local linage to provide safe sight distances and	- The location of crossovers would be subject	
	would further subject Polinelli Road to erosion.	to further consideration as part of the	
	recommends that no subdivision occur in bushfire prone areas.	to favourable determination of the	
	suggested by Strategen is very thorough it	proposed Scheme Amendment and	
	undeniable that another 11 properties will be placed at	Structure Plan. At this time, the crossovers	

Agency Submissions	missions
significant risk in a bush fire prone area. The Strategen plan	will be constructed in accordance with the
recommends 20 metre cleared areas around each dwelling and a	Shire's requirements.
further 50 metres where a high BAL is anticipated. Following	With respect to point 3, we note the following:
these guidelines the lots fronting Polinelli Road (3,4,5) and lots to	- Section 3.1 of the Guidelines for Planning in
the north (6,7) will be almost completely cleared totally negating	Bushfire Prone Areas states the following:
protection of the vegetation as stated in the proposed	
amendment. This does not correlate with the Shire of Chittering	"All strategic planning proposals,
desired outcomes of protection of the rural amenity of the arena.	subdivisions and development application
4. Clearing the vegetation high in the landscape causes increased	within a designated bushfire prone area will
risk of saline seepages on properties down slope of this property.	need to be accompanied by either a Bushfire
The property is on the ridge between the Ellen Brook catchment	Hazard Level assessment, a BAL Contour
to the east and the Brockman River catchment to the west, in	Map and/or a BAL assessment."
particular, the Marbling Brook subcatchment that is a priority	
fresh water stream and used for irrigation. This type of clearing	We note that a BAL Contour Map has
exacerbates the rate of salinisation of the waterway.	already been prepared for the site along
5. An alternative would be to have fewer, larger lots or conservation	with a Bushfire Management Plan, which
lot and incorporate the good quality vegetation into a protected	demonstrates areas at the site which are
area within the lots. Providing building envelope only in areas	most appropriate for development.
which are previously cleared would assist with retention of	- Figure 6 with the BMP illustrates that a
vegetation. The current proposal has four of the proposed	significant level of vegetation will be
building envelopes in well vegetated areas which would require	retained within lots 3, 4 and 5. There is also
extensive clearing.	the opportunity for the replanting of trees
	to occur to in the event that large numbers
The Ellen Brockman Integrated Catchment Group would recommend	of trees are required to be cleared.
that the Amendment be refused as it stands but understand that the	With respect to point 4, we note the following:
council would probably not wish to do so. A review of the proposed	- At the Structure Plan stage, the location of
subdivision should occur with the current proposal being completely	building envelopes and the impact of tree
reviewed to be more sympathetic to the land form, vegetation and the	clearing will be given careful consideration
Biodiversity Strategy recommendations.	by suitably qualified consultants to ensure
	adverse environmental impacts are
	minimised.
	- Consideration will be given to this matter
	when environmental investigations are
	undertaken on the site.
	With respect to point 5, we note the following:

	Agency Submissions	missions	
		 The size of the lots proposed at the subject site will be similar in size to the existing surrounding properties. We also note that based on the provisions of the Shire of Chittering Town Planning Scheme No. 6 "Rural Residential" zoned land is to comprise lots which are generally in excess of 1 hectare. The lots proposed within the ludicative Subdivision Plan are all in excess of 1 hectare, complying with the requirements of the Shire's Town Planning Scheme. The building envelopes cannot all be located in the areas which are most cleared as some of these area are located on sloped land which is not appropriate for development. 	
	Public Submissions	missions	
Public A *No.+	With respect of the proposed rezoning application for Lot #8, Buckthorm Drive please be advised that we do not support the proposal for the following reasons: We confirm that the lot sizes proposed within the proposal for the following reasons: The subdivision plan is indicative indicative Subdivision Plan are all in excess of 2 majority of nearby blocks are all 2 ha or larger. Indeed if the proposal was granted then we would like our property to be rezoned according The subdivision plan is indicative indicative Subdivision Plan are all in excess of 1 ha, whereas the great majority of nearby blocks are all 2 ha or larger. Indeed if the proposal was granted then we would like our property to be rezoned according The resoning will that of the eastern, norther southern neighbouring proj Thus a rezoning of neight properties is not necessary. - Land and house prices continue to fallwe are advised that currently there is some 15,500 properties available for sale in the Perth and surrounding districts, whereas a long term average is somewhere in the order of 8,000 properties. We believe that an additional release such as proposed will place added pressure to current inducer property bus and asset holdings Land valuations are not a planning consideration.	We confirm that the lot sizes proposed within the Indicative Subdivision Plan are all in excess of 2 hectares. The comment relating to housing prices is not a planning related matter and therefore does not relate to the Scheme Amendment.	The subdivision plan is indicative only and does not necessarily identify the final subdivision design or yield. In any event, the rezoning will match that of the eastern, northern and southern neighbouring properties. Thus a rezoning of neighbouring properties is not necessary. Land valuations are not a valid planning consideration.

	item 10.	1.0 - Alla	lumen
FORM N1			
WESTERN AUSTRALIA TRANSFER OF LAND ACT 1893 AS AMENDED			
NOTIFICATION UNDER SECTION 70A			
DESCRIPTION OF LAND (Note 1)	EXTENT	VOLUME	FOLIO
LOT 1 ON SURVEY-STRATA PLAN 74784 LOT 2 ON SURVEY-STRATA PLAN 74784	WHOLE WHOLE		
REGISTERED PROPRIETOR (Note 2)] []	L	
DEREK JOHN CLYDE & BEVERLEY DAWN CLYDE			
BOTH OF 57 THE FAIRWAYS, GNANGARA, W.A. 6077			
OCAL GOVERNMENT / PUBLIC AUTHORITY (Note 3)	A - 11 12 10 10		
SHIRE OF CHITTERING			
FACTOR AFFECTING USE OR ENJOYMENT OF LAND (Note 4)			
' A MAINS POTABLE WATER SUPPLY IS NOT AVAILABLE TO T	HE LOT/S.'		
Dated this day of		Year 20	16
OCAL GOVERNMENT/PUBLIC AUTHORITY ATTESTATION (Note 5) REGISTI	ERED PROPRIETORIS SIGN	HERE (Note 6)	
SHIRE OF CHITTERING Signed in the presence	Cassandra (Lives		

rd this day of	Year 2016
GOVERNMENT/PUBLIC AUTHORITY ATTESTATION (Note 5)	REGISTERED PROPRIETOR/S SIGN HERE (Note 6)
OF CHITTERING	Signed (Derek John Clyde)
	in the Cassandra (Litte Sign
	Address 57 The Fairways Occupation: Process Grangera Operator
	Signed(Beverley Dawn Clyde)
	in the Cassanda CUNE sign.
	Address 57 The Fair rays Occupation Process Operator

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INSTRUCTIONS

- If insufficient space in any section, Additional Sheet Form B1, should be used with appropriate headings. The boxed sections should only contain the words "see page....."
- Additional Sheets shall be numbered consecutively and bound to this document by staples along the left margin prior to execution by the parties.
- No alteration should be made by erasure. The words rejected should be scored through and those substituted typed or written above them, the alteration being initialed by the persons signing this document and their witnesses.

NOTES

- DESCRIPTION OF LAND Lot and Diagram/Plan/Strata/Survey-Strata Plan number or Location name and number to be stated.
 Extent - Whole, part or balance of the land comprised in the Certificate of Title to be stated.
 The Volume and Folio number to be stated.
- 2. REGISTERED PROPRIETOR State full name and address of the Registered Proprietors as shown on the Certificate of Title and the address / addresses to which future Notices can be sent.
- LOCAL GOVERNMENT / PUBLIC AUTHORITY State the name of the Local Government or the Public Authority preparing and lodging this notification.
- 4. FACTOR AFFECTING THE USE AND ENJOYMENT OF LAND

Describe the factor affecting the use or enjoyment of land.

- 5. ATTESTATION OF LOCAL GOVERNMENT / PUBLIC AUTHORITY To be attested in the manner prescribed by the Local Government Act or as prescribed by the Act constituting the Public Authority.
- REGISTERED PROPRIETOR'S EXECUTION A separate attestation is required for every person signing this document. Each signature should be separately witnessed by an <u>Adult Person</u>. The full name, address and occupation of the witness must be stated.





EXAMINED	175 5		

OFFICE USE ONLY

NOTIFICATION

LODGED BY PRO WEST SURVEYING

ADDRESS PO BOX 1463, OSBORNE PARK DC 6916

PHONE No. (08) 9443 8217

FAX No. (08) 9443 8844

REFERENCE No. 1784

ISSUING BOX No.

PREPARED BY AS ABOVE

ADDRESS

PHONE No.

FAX No.

INSTRUCT IF ANY DOCUMENTS ARE TO ISSUE TO OTHER THAN LODGING PARTY

TITLES, LEASES, DECLARATION	S ETC LODGED HEREWITH
1	Received Items
3	Nos.
4	
6	Receiving Clerk

Lodged pursuant to the provisions of the *TRANSFER OF LAND ACT 1893* as amended on the day and time shown above and particulars entered in the Register.

Page 981

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FORM N1

WESTERN AUSTRALIA TRANSFER OF LAND ACT 1893 AS AMENDED

NOTIFICATION UNDER SECTION 70A

DESCRIPTION OF LAND (Note 1)			EXTENT	VOLUME	FOLIO
LOT 1 ON SURVEY-STRATA PLAN 74	784		WHOLE		
LOT 2 ON SURVEY-STRATA PLAN 74	784		WHOLE		
REGISTERED PROPRIETOR (Note 2)					
DEREK JOHN CLYDE & BEVERLEY D	AWN CLYDE				
	NDA 14/ A 6077				
BOTH OF 57 THE FAIRWAYS, GNANG					
LOCAL GOVERNMENT / PUBLIC AUTHORITY (No. 2 Internet and the second second				
SHIRE OF CHITTERING					
FACTOR AFFECTING USE OR ENJOYMENT O					
A RETICULATED SEWERAGE SERVI	Marka and a second s				
Dated this	day of			Year 20	116
LOCAL GOVERNMENT/PUBLIC AUTHORITY AT	TESTATION (Note 5)	REGISTERED	PRIETOR/S SIGN	HERE (Note 6)	
SHIRE OF CHITTERING		Signed		(Derek John	Clyda
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		in the Cossor	dra ayne s	ign	
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		Address.5.7Tr	y Feirways	Occupation: Proc	ess opean
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		Signed		.(Beverley Dav	vn Clyde)
		In the Casecro	ha Ayde si		
		presence of Address 57 Th	e Fainaus	Occupation Prov	cess spece
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INSTRUCTIONS

- If insufficient space in any section, Additional Sheet Form B1, should be used with appropriate headings. The boxed sections should only contain the words "see page....."
- Additional Sheets shall be numbered consecutively and bound to this document by staples along the left margin prior to execution by the parties.
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NOTES

- DESCRIPTION OF LAND Lot and Diagram/Plan/Strata/Survey-Strata Plan number or Location name and number to be stated.
 Extent - Whole, part or balance of the land comprised in the Certificate of Title to be stated.
 The Volume and Folio number to be stated.
- REGISTERED PROPRIETOR State full name and address of the Registered Proprietors as shown on the Certificate of Title and the address / addresses to which future Notices can be sent.
- LOCAL GOVERNMENT / PUBLIC AUTHORITY State the name of the Local Government or the Public Authority preparing and lodging this notification.
- 4. FACTOR AFFECTING THE USE AND ENJOYMENT OF

Describe the factor affecting the use or enjoyment of land,

- ATTESTATION OF LOCAL GOVERNMENT / PUBLIC AUTHORITY To be attested in the manner prescribed by the Local Government Act or as prescribed by the Act constituting the Public Authority.
- REGISTERED PROPRIETOR'S EXECUTION
 A separate attestation is required for every person signing this document. Each signature should be separately witnessed by an <u>Adult Person</u>. The full name, address and occupation of the witness must be stated.



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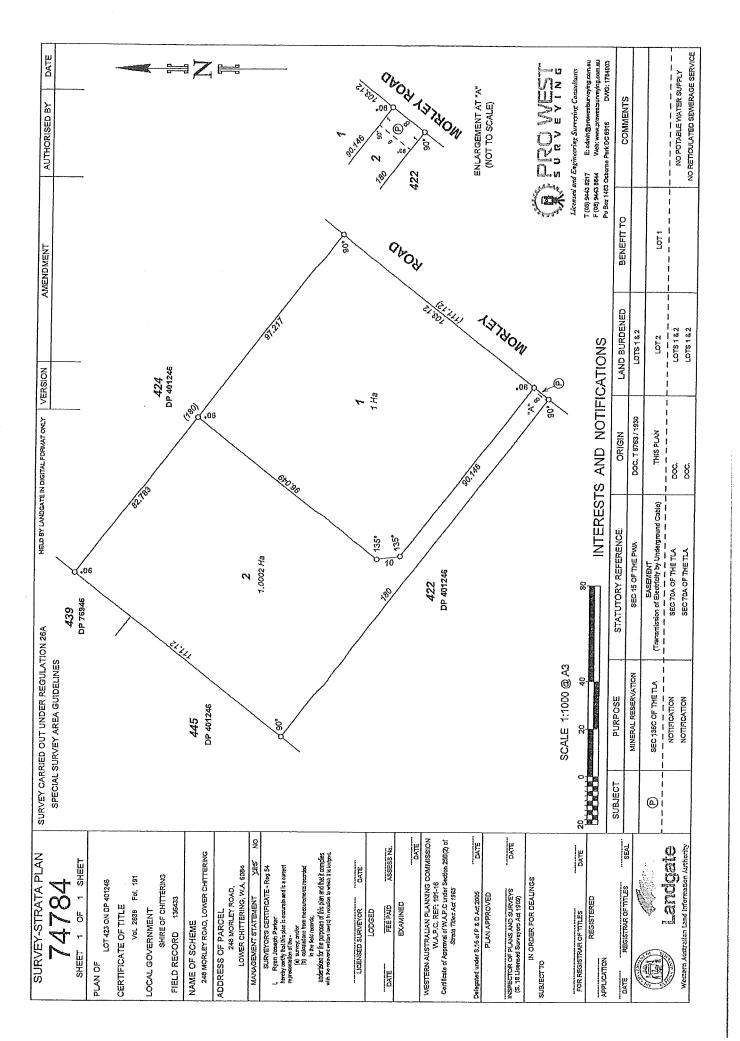
OFFICE USE ONLY

NOTIFICATION

	PRO WEST SUF	VEYING	
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	÷ •		
PHONE No. (08) 9443 8217		
FAX No. (08	6) 9443 8844		
REFERENCE No	. 1784A		
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PREPARED BY	AS ABOVE		
ADDRESS			
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Lodged pursuant to the provisions of the *TRANSFER OF LAND* ACT 1893 as amended on the day and time shown above and particulars entered in the Register.

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LOCALITY PLAN

LOT 1009 BINDOON – DEWAR'S POOL ROAD, BINDOON





Superlight Aircraft Club of WA (inc) c/- 28 Walter Rd East Eden Hill WA 6054

16 June 2016

Mr Alan Sheridian. CEO, Chittering Shire Binda Place Bindoon WA 6502

Subject: Proposed master plan of improvements to Bindoon Airfield

Dear Sir,

I am pleased to inform you that the Superlight Aircraft club of WA (Inc), (herein after the club), has recently purchased the Bindoon airfield and immediate surrounds in accordance with the attached plan on 24 May 2016.

The club has existed and operated from the airfield under an agreement with the Catholic Agricultural College for approximately 35 years, and has grown to become a substantial club with over 115 members from the local area and Perth.

During this time, club members have constructed 32 hangar and equipment sheds, predominantly commercially manufactured to house their recreational and sport aircraft. The club has also invested in firefighting vehicles, firefighting equipment and water storage tanks with a capacity of over 250,000 litres.

From our initial decision to purchase the airfield till now has taken approximately 3 years, and during that time no new structures have been constructed, as the members awaited for the purchase to be finalised. Now that settlement has been achieved, we have many members that wish to build new hangars and the club wishes to improve the infrastructure and services available to the membership.

And so to the reason of this letter.

We attach a forward looking overview of the plans the club has to improve the airfield, with a view to advising Chittering Shire of the longer term direction the club is taking, and to facilitate a streamlined process where members can approach the Shire for building approvals and/or permits for new hangar structures.

Our proposed improvements are as follows:

- 1. Allocation of 31 allotments of varying sizes to existing hangar owners that contributed funds to the club for the express purpose of purchasing the airfield. Please note that the club owns a commercially manufactured and erected equipment storage shed near allotment 18.
- 2. Allocation of 23 new allotments, each being approx. 20m x 20m in size for members that contributed funds to the club for the express purpose of purchasing the airfield and who desire to build new hangars. These members will secure the appropriate permissions and permits from the shire on a case by case basis. Three of these new allotments are within a lightly treed area and will only require removal of a couple of diseased (nearly dead) gum trees. An area has also been identified for possible future hangars or public open space or perhaps a club room, but the committee has not yet made any decisions on this area or its longer term plans. To ensure bio diversity is retained the club intends to plant more trees inside the property, and along the Bindoon Dewars Pool Rd.
- 3. At the end of each new hangar row, additional water storage for firefighting will be added, increasing site capacity to approx. 500,000 litres. All tanks including existing are / will be suitable for DFES to take water direct from the tank couplings.
- 4. The club intends to build a new communal toilet block for both men and women, with one stall being suitable for disabled people's access, and the club will submit documentation for planning permission in the near future.
- 5. The club intends to link all new hangars with taxy ways to the current runway and add a diagonal (NW / SE) taxy way for aircraft which might be useable as an alternative runway for our lightest aircraft should winds strengthen beyond the recommended cross wind component of either the pilot or their aircraft, thus increasing safety. This would not be used as a runway for routine operations as we wish to maintain our fly neighbourly policy with our neighbours on the southern boundary.
- 6. The club will designate a visitor carpark on the northern side of the hangar precinct.
- 7. Access to the airfield will be from the eastern crossover, with emergency exits at the western / central / eastern portions of the airfield.
- 8. The property will be fenced and a permanent 5m wide gravel firebreak established which will double as a fence perimeter track.
- 9. A sufficiently dense green zone with new trees planted to screen the new hangars area from direct view from Bindoon Dewars Pool Rd, so as to keep the rural feel to visitors and passing motorists.
- 10. It is the desire of the club to attach DFES locks to all gates so that in the event of a fire, DFES will be able to access the water storage on site. We have had discussion with DFES regards their fire management plans and access to our water for firefighting is seen as a significant benefit in lowering fire risk to the airfield assets and surrounds.

To assist councillors with understanding the existing infrastructure, and the proposed improvements I will now provide some greater detail of the proposed improvements.

The existing hangar area is shown in the diagram below.

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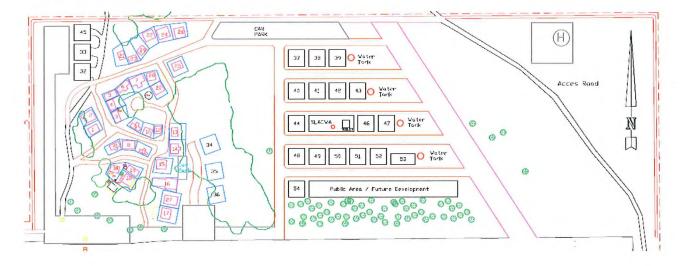
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1. Hangars are identified 1 - 31. The boundaries around each hangar (in blue), will be the area allocated to each hangar owner member for their personal aviation use.

- 2. The treed areas will be retained wherever possible with the exception of the required firebreaks.
- 3. The clubs equipment shed is adjacent to hangars 18 and 30.
- 4. There are currently 4 water storage tanks on site with a capacity of approx. 250,000 litres.



Our proposed improvements will improve the airfield as follows:



- The new hangar area has been kept as compact as possible to retain an open feel to the majority of the property. The allotments shown are the areas available to members to build their new hangars, not the size of the actual hangar as these will vary depending on individual requirements. New hangars will be built on plots numbered 32 – 54 over the next few years.
- 2. Four additional water storage tanks for firefighting and a separate tank for the toilets.
- 3. The aircraft apron will be expanded to allow for visitor aircraft parking should we have an open day or fly in.
- 4. Vehicle access will be relocated to the eastern access track to prevent cars crossing an active runway further enhancing safety.
- 5. Visitor carpark well away from aircraft activity.
- 6. The new hangar area will be screened by a green zone of trees to keep a rural feel to passers-by.
- 7. A communal toilet facility will be built between plots 44 and 46. Separate planning permissions will be sought for this item in the near future.

As all of these planned improvements have been chosen with the guidance of the Shire's Planning Department, we trust that the above meets with the approval of the Shire, and that the Shire will then look favourably on the hangar building applications from our membership and expedite them through the approval process.

If there are any specific changes required, the club will most certainly comply with all Shire requirements and will work with the appropriate departments to achieve a positive outcome for all.

Yours sincerely,

Jack Donsen President Superlight Aircraft Club of WA (Inc)

<u>Addendums:</u> Landgate Record of title and site plan. Current property survey with land contours shown. Proposed plans with improvements shown. Photo of current hangar area from Bindoon – Dewars Pool Rd. List of members allocated a new hangar allotment. Photos of existing airfield and infrastructure.

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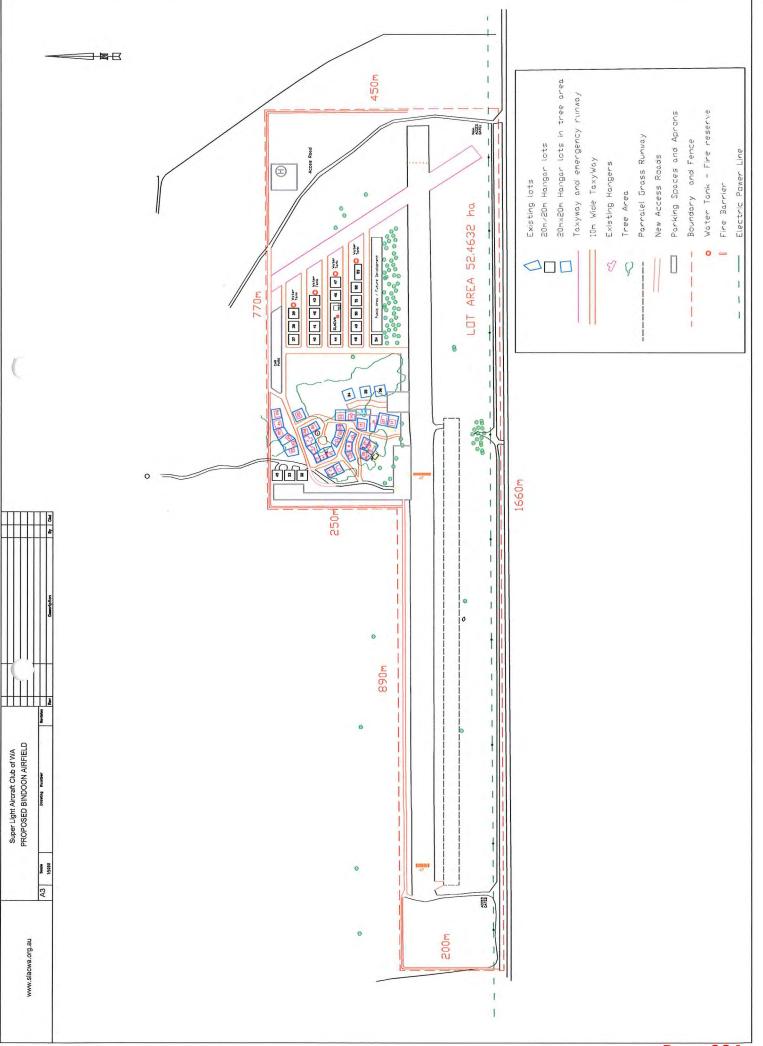
Members List of new hangar plots as allocated, and whom will be applying to the Shire for building approvals.

Lot No.	Name.
32.	Christopher Mills
33.	Shane Curgenven
34.	Paul Brocklehurst
35.	Paul Brocklehurst
36.	Wayne Fowler
37.	Paul Pearson
38.	Brad Cole/Michael Donsen
39.	Anton Kepinski
40.	Stuart Wood
41.	Dean Wood
42.	Stuart Wood
43.	Dean Wood
44.	Joseph Kennedy
45.	G Whiteside
46.	Stuart Wood
47.	Ehud Ravikovitch
48.	Andrew Murray
49.	Tony Watters
50.	Matt Robinson
51.	Rob Hanbury
52	Peter Newnes

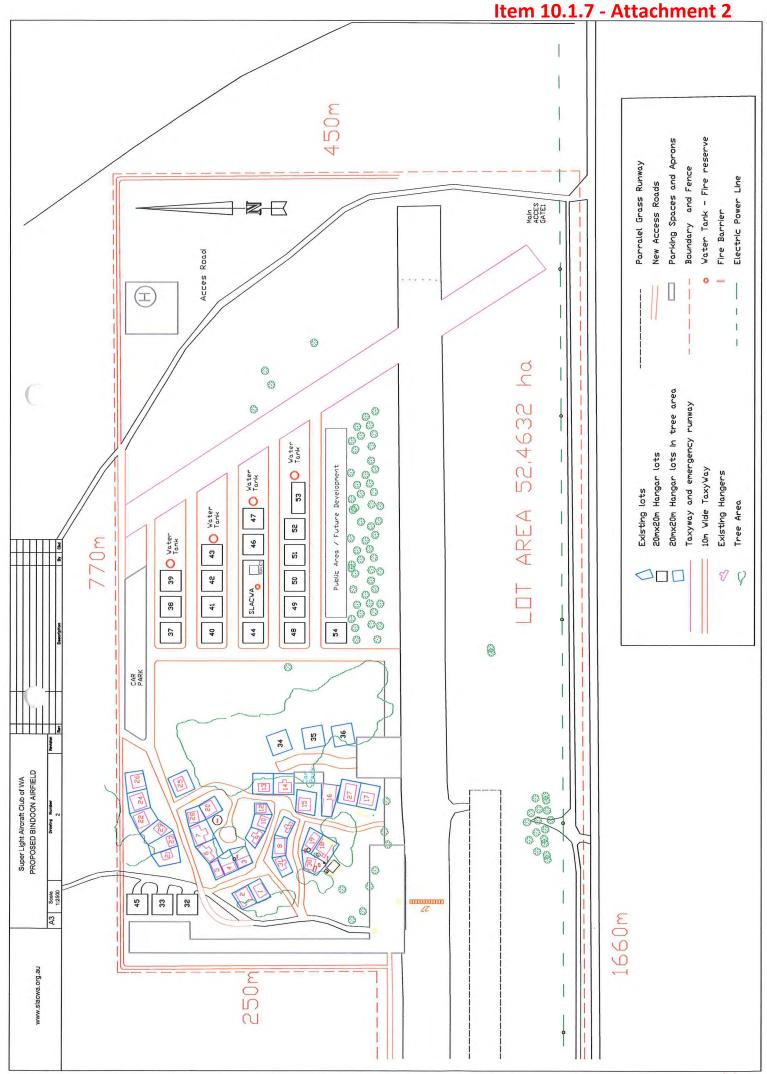
- 52. Peter Newnes
- 53. Stuart Wood
- 54. Razvan Puiu

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Page 994



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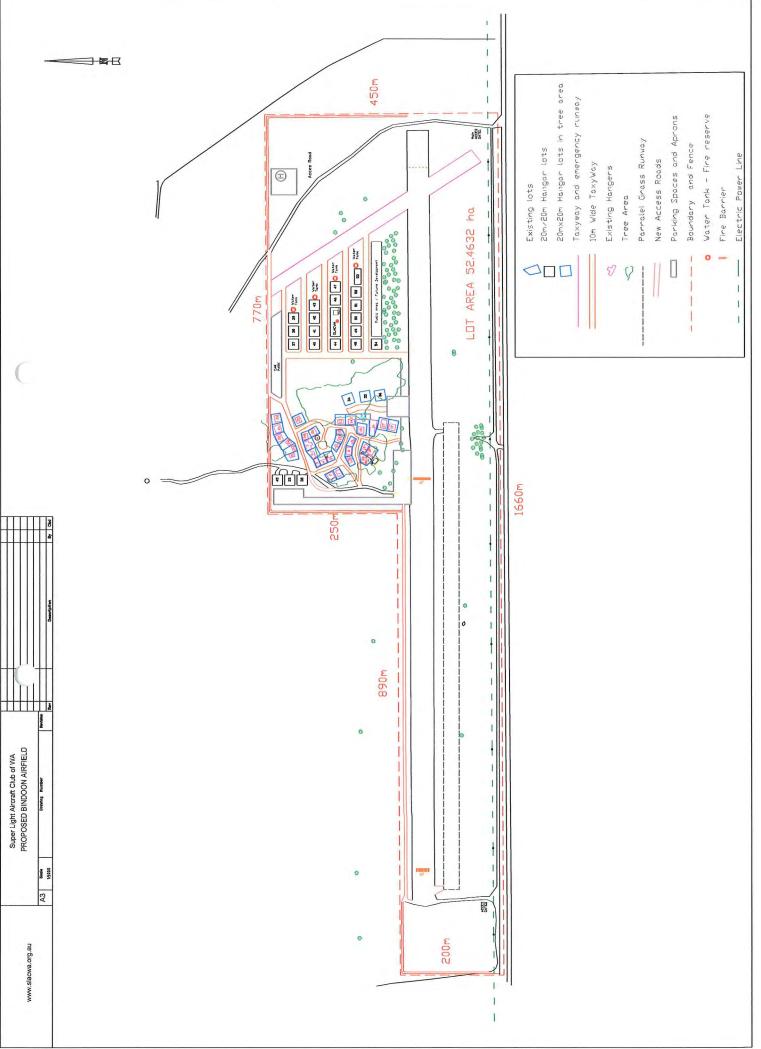
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DEPOSITED PLAN 73248 SHEET 1 OF 1 SHEET	ALLA	FOR INSPECTOR OF PLANS AND SURVEYS APPROVED INSPECTOR OF PLANS AND SURVEYS (S. 18 Licensed Surveyors Act 1909)	Delegated under S.16 P&D Aci 2005 IN ORDER FOR SUBJECT TO	STRA		records. I' delte if inapplicable] undertaken for the purposes of this plan and that it complex with the relevant written law(5) in relation to which it is lodged. $\mu = \mu + \mu + \mu$ which it is lodged. $\mu = \mu + \mu + \mu$	SURVEYOR'S CERTIFICATE - REG 54 . J. A. HIGHAM hereby certify that this plan is accurate and is a correct representation of the - (a) "survey; and/or (b) "calculations from measurements recorded in the field (b) "calculations from measurements recorded in the field	14 Nor		FORMER TENURE	LOTS 10	m	
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