



Forrington Heights Local Structure Plan, Waroona

WARO/2016/1

Prepared by Edge Planning & Property for R Butler

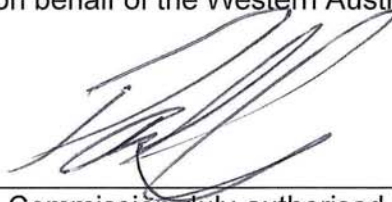
www.edgeplanning.com.au

August 2017

Ref: 2016-204158

IT IS CERTIFIED THAT AMENDMENT NO. 1 TO FORRINGTON
HEIGHTS LOCAL STRUCTURE PLAN WAS APPROVED BY
RESOLUTION OF THE WESTERN AUSTRALIAN PLANNING
COMMISSION ON: **6 September 2017**

Signed for and on behalf of the Western Australian Planning Commission

A handwritten signature in black ink, consisting of several overlapping, fluid strokes that form an abstract, cursive shape. The signature is positioned above a horizontal line.

an officer of the Commission duly authorised by the Commission pursuant
to Section 16 of *the Planning and Development Act 2005* for that purpose.

TABLE OF AMENDMENTS TO LOCAL STRUCTURE PLAN

Amendment No.	Summary of the Amendment	Amendment type	Date Approved by WAPC
1	Part 1 (section 4)	Modification required by WAPC	July 2017

EXECUTIVE SUMMARY

The Forrington Heights Local Structure Plan has been prepared to guide subdivision/development within the Structure Plan area and to facilitate the subdivision of Lot 51 Elliott Street, Waroona (the site) to create one additional lot.

Plan 1 shows Lot 51 subdivided into two lots, a new building envelope in the north-west section along with an emergency access way between Elliott Street and Forrington Heights. Appendix 6 shows the Subdivision and Building Envelope Plan for Lot 51 Elliott Street. This includes showing two proposed lots with Lot 1 (6.22 hectares) and Lot 2 (4 hectares), a building envelope of 2500m² on proposed Lot 2 and an emergency access way between Elliott Street and Forrington Heights.

The site is located within a long established rural residential estate which is approximately 1 kilometre north-east of the Waroona town centre. The site adjoins Rural Residential and Special residential zoned land and land allocated as 'Rural Residential' in the Local Planning Strategy in Strategy Map 2.

The Structure Plan area is zoned 'Rural Residential' and the Structure Plan continues to propose rural residential uses.

The Structure Plan, when approved by the Western Australian Planning Commission, will replace the Subdivision Guide Plan for Part Lot 11 Nanga Brook Road (Forrington Heights Estate).

The following summarises the key outcomes of the Structure Plan:

Structure Plan summary table		
Item	Data	Structure Plan reference (section number)
Total area covered by the Structure Plan	41 hectares	Part Two, section 1.2.2
Area of each land use: - Rural Residential	40.55 hectares	Part Two, section 3.3
Estimated lot yield - Rural Residential - Total	11 lots 11 lots	Part Two, section 3.3
Estimated number of dwellings	11 dwellings	Part Two, section 3.3
Estimated residential density	0.27 dwellings per site hectare	Part Two, section 3.3
Estimated population	26	Part Two, section 3.3
Number of schools	Nil	Part Two, section 3.6

This Structure Plan comprises two parts. Part One is the implementation section, while Part Two is the explanatory section with associated technical appendices.

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FORRINGTON HEIGHTS LOCAL STRUCTURE PLAN

PART ONE - IMPLEMENTATION

1. Structure Plan area

This Structure Plan shall apply to the land contained within the inner edge of the line denoting the Structure Plan boundary on the Structure Plan map (Plan 1).

2. Operation

The Structure Plan comes into effect the date the Structure Plan is approved by the Western Australian Planning Commission (WAPC).

3. Staging

The Forrington Heights Estate is a long established rural residential subdivision. Only one additional lot is proposed by the Structure Plan on Lot 51 Elliott Street.

4. Subdivision and development requirements

Subdivision of lots within the Structure Plan area shall generally be in accordance with the approved Structure Plan map (Plan 1) with any new lot to be at least 4 hectares in area.

Any application to subdivide land which relies on a public access easement for the provision of secondary access in an emergency situation (for example, during a bushfire) should:

- (a) be preceded by the registration of the easement on the certificate(s) of title; or
- (b) include each lot which would be burdened by the proposed easement.

There are various existing lots below 4 hectares. The Structure Plan acknowledges these previously created lots which are not impacted by the new 4 hectare minimum lot area requirement.

There is only one lot in the Structure Plan area above 8 hectares which is Lot 51 Elliott Street. Accordingly, only one additional lot is proposed by the Structure Plan which is subdividing Lot 51 Elliott Street to create new lots of approximately 4 hectares and 6.22 hectares.

The Structure Plan area is zoned 'Rural Residential' and the Structure Plan continues to propose rural residential uses. Land use permissibility will be controlled by the Scheme. Development will be controlled by the Scheme and will be guided by the Structure Plan (Plan 1) and any relevant adopted Local Planning Policies.

The Scheme provides controls and the Local Planning Strategy provides direction for land adjoining the Structure Plan area. The site adjoins Rural Residential and Special residential zoned land and land allocated as Rural Residential in the Local Planning Strategy.

Subject to the Structure Plan being approved by the WAPC, a subdivision application will be lodged for Lot 51 Elliott Street. Conditions of the approval are expected to include implementation of the approved Bushfire Management Plan, identifying a building envelope, and advising that reticulated water is not available to the lots.

5. Local Development Plans

No Local Development Plan is required within the Structure Plan area.

6. Other requirements

There are no other requirements.

7. Additional information

There is no additional information.

PLAN 1 LOCAL STRUCTURE PLAN

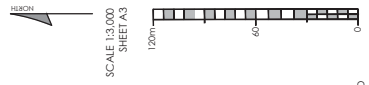
Forrington Heights
Waroona
Shire of Waroona

WARO/2016/1
Ref: 2016-204158

- LEGEND**
- STRUCTURE PLAN BOUNDARY
 - RURAL RESIDENTIAL
 - ▨ INDICATIVE BUILDING ENVELOPES
 - ▧ STREAM PROTECTION AREA
 - STRATEGIC FIREBREAK
 - ▨ WESTERN POWER EASEMENT
 - EMERGENCY ACCESS WAY
 - LOT BOUNDARY

THIS STRUCTURE PLAN HAS BEEN APPROVED BY THE
WESTERN AUSTRALIAN PLANNING COMMISSION.

SIGNED DATE

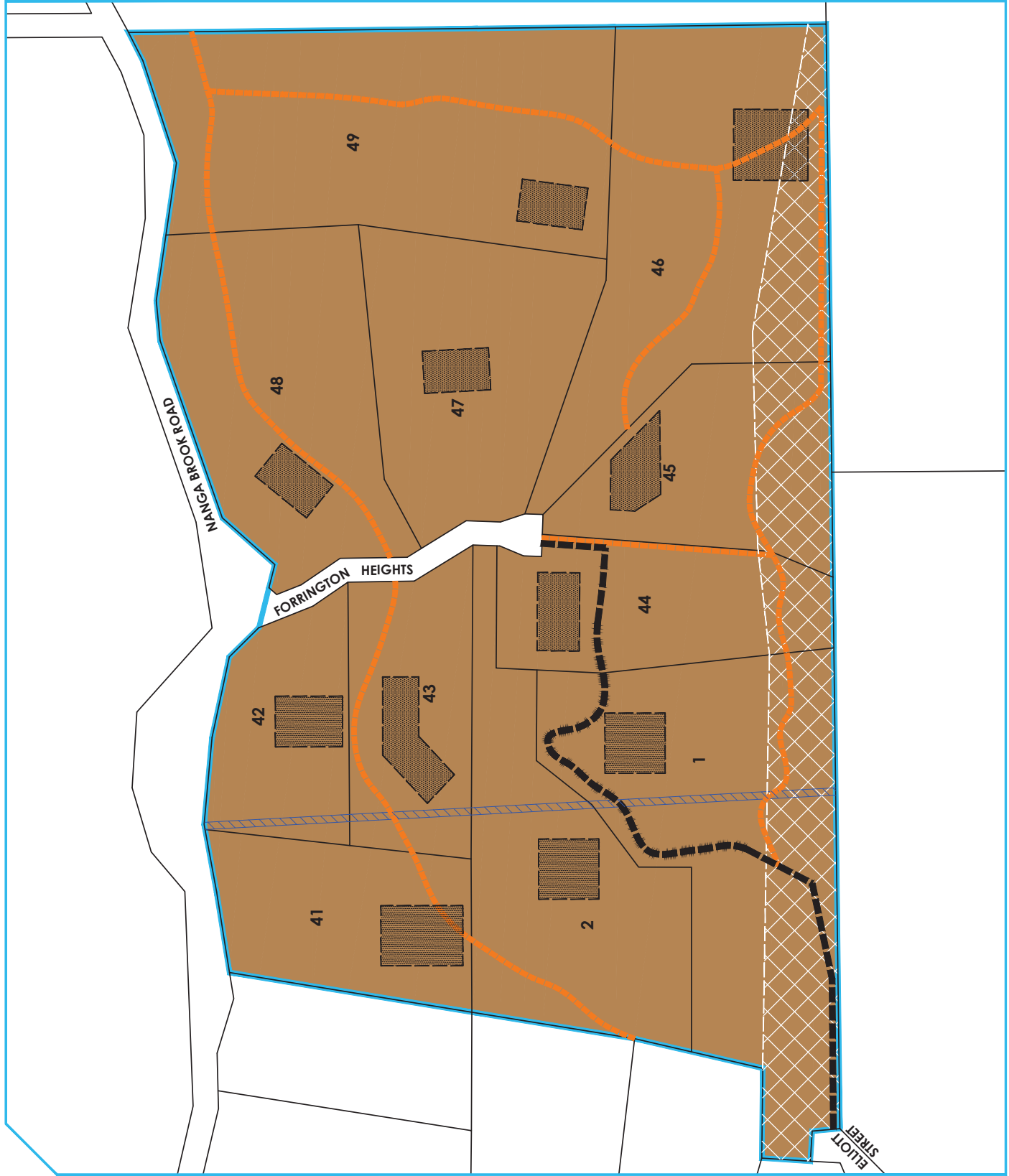


C. MINOR MODIFICATIONS 170123 S.J. ST
B. PLAN 1 161208 S.J. ST
A. ZONING MAP 151125 S.J. ST
REV. DESCRIPTION YTM/ADD DRAWN/APP/VD

edge
PLANNING PROPERTY
Edge Planning & Property
100/102 Stirling Street
Perth WA 6000
P: 9442 9999
F: 9449 107 396

DRAWING NUMBER REV
EP 1 511 24 03 C

Issued for design review only.
Subject to final design & survey.



PART TWO - EXPLANATORY SECTION

1. PLANNING BACKGROUND

1.1 Introduction and purpose

The purpose of the Structure Plan is to:

- update and replace the Subdivision Guide Plan for Part Lot 11 Nanga Brook Road (Forrington Heights Estate);
- facilitate the subdivision of Lot 51 Elliott Street (the site) to create two new lots (or one additional lot);
- provide for the orderly and proper planning of the site (see Appendix 1); and
- address the requirements set out in the *Shire of Waroona Town Planning Scheme No. 7* (the Scheme).

The Structure Plan, provided in Plan 1, shows how the site can be subdivided and developed. The Structure Plan seeks to provide for the orderly and proper planning of the site in terms of land use, servicing, and addressing bushfire management.

Appendix 6 shows the Subdivision and Building Envelope Plan for Lot 51 Elliott Street. This includes showing two proposed lots with Lot 1 (6.22 hectares) and Lot 2 (4 hectares), a building envelope of 2500m² on proposed Lot 2 and an emergency access way between Elliott Street and Forrington Heights.

The Structure Plan area is zoned 'Rural Residential' and the Structure Plan continues to propose rural residential uses.

1.2 Land description

1.2.1 Location

The Structure Plan area is located approximately 1 kilometre north-east of the Waroona town centre as outlined in Appendix 2. The site is bordered by rural residential and special residential properties, along with future rural residential areas.

1.2.2 Area and land use

The Structure Plan area is approximately 41 hectares and is an established rural residential estate. It currently contains 10 rural residential lots with established dwellings, outbuildings and associated improvements.

Lot 51 Elliott Street (the site) is 10.22 hectares in area and contains a dwelling, two outbuildings and rainwater tank. Most of the site is regrowth vegetation.

1.2.3 Legal description and ownership

The Structure Plan consists of 10 properties.

The site is legally described as Lot 51 on Deposited Plan 40550 contained on Volume 2576 and Folio 80 which is owned by Richard Butler. The site is burdened with easements and has a memorial associated with the *Soil and Land Conservation Act 1945* (Agreement to Reserve). The Agreement to Reserve is limited to 1 May 2024. The Certificate of Title is outlined in Appendix 1.

1.3 Planning framework

1.3.1 Zoning and reservations

The Structure Plan area is zoned 'Rural' in the *Peel Region Scheme*. Clause 12(e) states that the purpose of the Rural Zone is 'to provide for the sustainable use of land for agriculture, assist in the conservation and wise use of natural resources including water, flora, fauna and minerals, provide a distinctive rural landscape setting for the urban areas and accommodate carefully planned rural living developments.'

The Structure Plan area is zoned as 'Rural 6 - Rural Residential' in the *Shire of Waroona Town Planning Scheme No. 7* (the Scheme). In particular, the Structure Plan area is identified as Rural Residential Zone No. 3 (see Appendix 4).

There are various provisions relating to the Rural Residential Zone including clauses 4.14 and 4.15, with site specific provisions in Schedule II – Rural Residential Codes for Rural Residential Zone No. 3. R Res 3 Code (i) states that 'Council objectives are to provide for Rural Residential subdivision and development in close proximity to Waroona Townsite and to encourage retention and re-establishment of native vegetation, stream protection and unobtrusive development in harmony with the environment consistent with the need for reasonable protection against bushfires.'

The *Planning and Development (Local Planning Schemes) Regulations 2015* set out deemed provisions in Schedule 2. Part 4 – Structure plans outlines the process for the preparation, advertising and associated decision of the WAPC.

1.3.2 Regional and sub-regional structure plan

The draft *Outer Metropolitan Perth and Peel Sub-Regional Strategy* (2010) included the Shire of Waroona.

The draft *South Metropolitan Peel Sub-regional Planning Framework* (2015) identifies the site's western section as 'Urban Expansion' and the eastern section as 'Rural'. It is suggested that the western section of the site is not likely to be developed for urban purposes given the topography. The local government also recognise the constraints of the western section for urban development and consider its long term future will remain as rural residential.

The draft *Perth and Peel Green Growth Plan for 3.5 million* (December 2015) includes the Shire of Waroona. The draft plan seeks to provide certainty in relation to environmental outcomes and to deliver a comprehensive conservation program which includes 170,000 hectares of new and expanded conservation reserves. No new conservation reserves are however identified to the east of the Waroona townsite.

1.3.3 Planning strategies

The Structure Plan is consistent with relevant State, regional and local planning strategies which include *State Planning Strategy 2050, Directions 2031*, and the *Shire of Waroona Local Planning Strategy (LPS)*. The LPS:

- includes the Structure Plan area within the Scarp & Darling Range Precinct;
- allocates the Structure Plan area as 'Rural Residential' in Strategy Map 2;
- sets out that the objective of the Rural Residential classification is 'To provide areas that will offer lifestyle blocks in close proximity to the Waroona townsite, with good amenity and in locations where environmental impacts can be minimised'; and
- sets a minimum lot size of 4 hectares is specified for the Rural Residential zone.

1.3.4 Planning policies

The Structure Plan, which outlines a minimum lot size of 4 hectares, is consistent with relevant State Planning Policies (SPP) including *SPP2.1 Peel-Harvey Coastal Plain Catchment Policy*, *SPP 3 Urban Growth and Settlement* and *SPP 3.7 Planning in Bushfire Prone Areas*. The Structure Plan is also consistent with relevant Local Planning Policies including *Local Planning Policy 27 – Waroona East Hills Development*.

1.3.5 Other approvals and decisions

The Council adopted the Subdivision Guide Plan on 26 April 1994. The Structure Plan area is a long established rural residential estate created in the mid-1990s.

The WAPC in 2003 approved the subdivision to create current Lot 50 Forrington Heights and Lot 51 Elliott Street.

The local government has issued various approvals on the site including for a dwelling and outbuildings.

1.3.6 Pre lodgement consultation

Pre-lodgement consultation has occurred with the local government, Department of Planning, Department of Fire and Emergency Services and Department of Agriculture and Food (Commissioner of Soil and Land Conservation).

2. SITE CONDITIONS AND CONSTRAINTS

2.1 Biodiversity and natural area assets

2.1.1 Overview

It is expected that the proposed subdivision of the site and the associated development on proposed Lot 2 will have negligible environmental impacts given the site consists of regrowth vegetation, only one new dwelling will be constructed and effluent disposal and stormwater will be appropriately managed.

2.1.2 Native vegetation

The site contains only a small section of remnant native vegetation in the south-west section of the property near the seasonal watercourse.

The site predominantly consists of regrowth vegetation following portions of the site been used as a gravel pit until the 1980s. The current landowner planted thousands of native trees on the property in the mid-1990s. The level of planting with the associated cleared understorey results in the site having a 'parkland' feel.

The site is burdened a memorial associated with the *Soil and Land Conservation Act 1945* (Agreement to Reserve). The Agreement to Reserve is limited to 1 May 2024.

Vegetation will be retained on proposed Lot 1 and most vegetation will be retained on proposed Lot 2. Some clearing of the regrowth vegetation is required to facilitate the construction of a dwelling, outbuilding and for bushfire management on proposed Lot 2. The building envelope on proposed Lot 2 has been selected to minimise the amount of clearing required.

Pre-lodgement consultation was undertaken with the Department of Agriculture and Food (Commissioner of Soil and Land Conservation). The Commissioner of Soil and Land Conservation advised in a letter dated 18 November 2016 that 'A preliminary review of this proposal did not disclose matters relevant to the *Soil and Land Conservation Act 1945* that would preclude a variation to the Agreement to Reserve that protects native vegetation on this land.'

Accordingly, the proposed subdivision to create an additional lot/dwelling and the associated small-scale clearing on proposed Lot 2 can address the conservation covenant through a variation to the Agreement to Reserve. The variation to the Agreement to Reserve will be finalised through lodging an Interests Only Deposited Plan following gaining structure planning and subdivision approvals.

2.2 Landform and soils

2.2.1 Gradient, soils and test pit

The site has a moderate gradient falling across the site towards the south-west. Elevation varies from approximately 90 metres AHD at the lowest point in the south-west section to 145 metres AHD in the north-east section.

The site forms part of the DR2 landform unit as mapped by the former Department of Agriculture. Soil types are generally a gravel and clay formation.

A test pit was dug in the indicative building envelope on proposed Lot 2 in November 2015 and inspected by the Shire's Environmental Health Officer on 11 November 2015. This confirmed that the proposed area for the installation/construction of a standard septic system is acceptable in regard to the planning and scheme policies. Further details are outlined in later sections.

2.2.2 Landscape impact

The site is located on the lower slopes of the Darling Scarp and the landscape values of the wider locality are considered to be high. While noting this, there will be limited landscape impact associated with one additional dwelling on proposed Lot 2. For instance, the site is well setback from Nanga Brook Road (see Appendix 3) and substantial vegetation will be retained. A future dwelling on Lot 2 could be located and designed to have minimal off-site landscape impact.

2.3 Groundwater and surface water

Groundwater and surface water are not considered constraints to future development.

There is a seasonal watercourse in the south-west section of the site which flows in a northerly direction. The Structure Plan area forms part of the Peel-Harvey Catchment.

There is no risk of flooding in the indicative building envelope of proposed Lot 2 given it is located high in the catchment, it is well setback from the seasonal watercourse, and the watercourse is located in a well-defined gully.

2.4 Bushfire hazard

Fire Plan WA has prepared a Bushfire Management Plan (Appendix 5) to inform the Structure Plan and its design. As part of this, a preferred building envelope is nominated, with the bushfire assessment outlining implications and associated clearing required to achieve a BAL-29 or below. The Department of Fire and Emergency Services were consulted through the preparation of the Bushfire Management Plan and raise no objections.

The site and the proposed subdivision/development will have manageable bush fire risks as set out in Appendix 5. The Bushfire Management Plan illustrates that fire risk can be safely managed with future subdivision of the land. Significantly, the site has gazetted road access to both Elliott Street and Forrington Heights and an existing sealed driveway connects Elliott Street and Forrington Heights.

Future subdivision/development will include measures such as alternative escape route for residents, requiring landowners to retain a low fuel area around their dwelling, advising prospective purchasers of bushfire risk and their obligations and the site being servicing by fire response units located in the Waroona townsite. Accordingly, based on Appendix 5, acceptable protection can be offered to future residents from bushfire hazards and bushfire risk can be appropriately managed within acceptable limits.

At the subdivision stage, there is a need to ensure the emergency access way is protected by an easement in gross between Elliott Street and Forrington Heights. This in part will require the owner of adjoining Lot 50 Forrington Heights (a family member of the owner of Lot 51 Elliott Street) to agree to the easement in gross.

2.5 Heritage

There is no registered Aboriginal heritage site within the Structure Plan area as set out on the Department of Aboriginal Affairs heritage inquiry system. Proponents are required to address the Department of Aboriginal Affairs *Cultural Heritage Due Diligence Guidelines* and meet the provisions of the *Aboriginal Heritage Act 1972*.

The site contains no structure or place of heritage significance on the *Shire of Waroona Municipal Heritage Inventory*.

2.6 Servicing

2.6.1 Wastewater

Existing and future rural residential lots will be serviced by on site wastewater disposal. Further details are outlined in section 3.8.2.

2.6.2 Water

Potable water supplies to existing and future lots/dwellings in the Structure Plan area are serviced by on-site water supplies (roof catchment to rainwater tanks).

2.6.3 Stormwater

The site generally drains towards the south-west. Stormwater drainage will be managed through on-site reuse, detention and connection. Further details are outlined in section 3.5.

2.6.4 Telecommunications and electricity

The site is serviced by telecommunications and overhead electricity assets. Future lots will need underground power.

2.6.5 Roads

Vehicular access is via the sealed Elliott Street and Forrington Heights. Forrington Heights connects to Nanga Brook Road which is a key district road.

2.7 Context and other land use constraints and opportunities

2.7.1 Context

The site is located approximately 1 kilometre north-east of the Waroona town centre. Proposed Lot 2 is surrounded by rural residential and special residential development (see Appendix 3 and 4) and future rural residential development.

2.7.2 Rational for Structure Plan design

The Forrington Heights Estate is established and only minor changes are proposed to the previously approved Subdivision Guide Plan. Accordingly, the Structure Plan

responds to the site's context, opportunities and constraints and the planning framework. The rationale behind the Structure Plan (Plan 1) includes to:

- provide for rural residential lots with a minimum lot size of 4 hectares;
- address land use compatibility with adjoining/nearby uses and coordinate with surrounding development;
- make minor modifications to the previously approved Subdivision Guide Plan;
- address bush fire risks and enhance the safety of future residents; and
- address the requirements of the Scheme.

2.7.3 Structure Plan key proposals

The Structure Plan proposes minor changes to the former Subdivision Guide Plan, with the key change showing Lot 51 Elliott Street being divided into two rural residential lots of 4 hectares and 6.22 hectares. A new building envelope is shown in the north-west section of Lot 51 Elliott Street along with an emergency access way between Elliott Street and Forrington Heights.

Based on WAPC requirements, the Structure Plan has been simplified compared to the former Subdivision Guide Plan.

3. LAND USE AND SUBDIVISION REQUIREMENTS

3.1 Land use

3.1.1 Overview

The Structure Plan (Plan 1) provides guidance for future subdivision and development. In particular, the Structure Plan provides the opportunity for rural residential subdivision to 4 hectares.

The Structure Plan Summary Table in the Executive Summary outlines key statistics and planning outcomes.

3.1.2 Suitability of proposed land use

The Structure Plan area is a well-established rural residential estate.

The site is considered suitable and capable of the proposed two lot subdivision on Lot 51 Elliott Street including that lot sizes are consistent with the planning framework and are larger than most other nearby rural residential lots. The site is also close to the town centre and other services.

3.1.3 Integration with surrounding land use

The Structure Plan is compatible and integrated with surrounding land uses. Most of the adjoining and nearby rural residential properties are around 2 – 3 hectares in area. Land to the south is identified in the LPS as rural residential.

3.2 Public open space

No public open space is provided in the estate or proposed in the Structure Plan area. The Structure Plan contains generous lot sizes which provide opportunities for private recreation.

3.3 Rural Residential

The Structure Plan area is a well-established rural residential estate with 10 existing lots. The Structure Plan provides rural residential development.

It is noted that increasing population in Waroona adds to its overall viability, vitality and prosperity and the range of services that can be sustained.

3.4 Movement networks

The Structure Plan shows the existing constructed Forrington Heights. Subdivision of the site will utilise Forrington Heights and Elliott Street.

3.5 Water management

There are opportunities to enhance water quality and quantity onsite before being discharged offsite to the south-west. Accordingly, stormwater management from the subdivision/development is required be effectively designed, constructed and maintained. The following provides a framework for stormwater management:

- adopt a water sensitive design which manages, detains and slows down peak flows that especially address the 'first flush' run off. This will promote stormwater harvesting (including rainwater tanks), manage runoff and promote appropriate infiltration on the proposed lots for minor rainfall events;
- more significant storm events will be conveyed along roads and drainage lines to downstream receiving waters; and
- filling for buildings to increase heights above the ground level to avoid localised drainage impacts.

There are opportunities for various water conservation initiatives on the site as part of future development. This can include conserving potable water through utilising water-efficient fixtures and fittings, encouraging water wise practices by households and developing water-wise gardens.

3.6 Education facilities

No land is set aside for education facilities within the Structure Plan area. There are nearby public and private schools in Waroona.

3.7 Activity centres and employment

No areas are set aside for activity centres and employment in the Structure Plan area. Employment areas are located nearby including in the Waroona town centre and industrial area.

There are opportunities for low-key home businesses within the Structure Plan area, subject to permissibility by the Scheme and which gain relevant approvals.

3.8 Infrastructure coordination, servicing and staging

3.8.1 Overview

Background servicing information is set out in section 2.6. The proposed lots will be appropriately serviced in accordance with local government, WAPC and other government agency requirements.

Proposed Lot 2 can readily accommodate a dwelling given it is well setback from watercourses, there are soil types that are appropriate to accommodate on-site effluent disposal, stormwater will be contained on-site and bush fire risk can be appropriately addressed.

3.8.2 Wastewater

All rural residential lots in the Structure Plan area are serviced by on-site effluent disposal.

As outlined in section 2.2, a test pit was dug in the indicative building envelope. The Shire's Environmental Health Officer inspected the test pits and advised:

‘the proposed area for the installation/construction of a standard septic system is acceptable in regard to the planning and scheme policies. The soil is clay based and it will be necessary to use ballast around the leach drains to ensure effective infiltration rates. Any excessive water runoff may need be diverted away from the septic system. Please note that should it be demonstrated that there are specific environmental conditions on the lot eg high water table you may be advised to install an alternative treatment system.

All works must comply with the Health Act 1911, the Health (Treatment of Sewage and Disposal of Effluent and Liquid Waste) Regulations 1974 and the by-laws and practices of the National Plumbing Code – AS/NZS 3500.’

In addition to the above, on-site effluent disposal to service one new dwelling on proposed Lot 2 is considered appropriate for reasons including:

- on-site effluent disposal systems have operated effectively in the well-established Forrington Heights Estate;
- it has a generous lot size;
- it is setback approximately 150 metres from the seasonal watercourse;
- there is limited risk of nutrient export or water pollution risk given there is significant vegetation between the anticipated location of the effluent disposal system and the seasonal watercourse;
- it will achieve over a 2 metre vertical separation from the highest groundwater level; and

- it complies with *SPP2.1 Peel-Harvey Coastal Plain Catchment Policy*, the *Government Sewerage Policy, Scheme and LPS*.

If required, a geotechnical investigation can be undertaken as a condition of subdivision or development approval to confirm whether effluent disposal is by standard septic tank/leach drain and/or by Alternative Treatment Unit.

3.8.3 Staging

The subdivision was created in the mid-1990's and only minor additional subdivision/development is proposed.

3.9 Developer contributions arrangements

Developer contributions are to be made in accordance with the WAPC's *SPP 3.6 Development Contributions for Infrastructure* and any Local Planning Policy adopted by the Council.

3.10 Other requirements

There are no other requirements.

TECHNICAL APPENDICES (FIGURES)

APPENDIX 1

WESTERN



AUSTRALIA

REGISTER NUMBER 51/DP40550	
DUPLICATE EDITION 2	DATE DUPLICATE ISSUED 26/10/2011

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

VOLUME **2576** FOLIO **806**

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.



REGISTRAR OF TITLES

LAND DESCRIPTION:

LOT 51 ON DEPOSITED PLAN 40550

REGISTERED PROPRIETOR:
(FIRST SCHEDULE)

RICHARD HATTON BUTLER OF POST OFFICE BOX 356, WAROONA
(ND L765447) REGISTERED 21 OCTOBER 2011

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

1. F570174 EASEMENT TO SHIRE OF WAROONA. SEE DEPOSITED PLAN 40550 REGISTERED 7.6.1994.
2. *F598653 MEMORIAL SOIL AND LAND CONSERVATION ACT 1945. AS TO PORTION ONLY REGISTERED 30.6.1994.
3. EASEMENT BURDEN CREATED UNDER SECTION 27A OF T. P. & D. ACT - SEE DEPOSITED PLAN 40550.

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-----

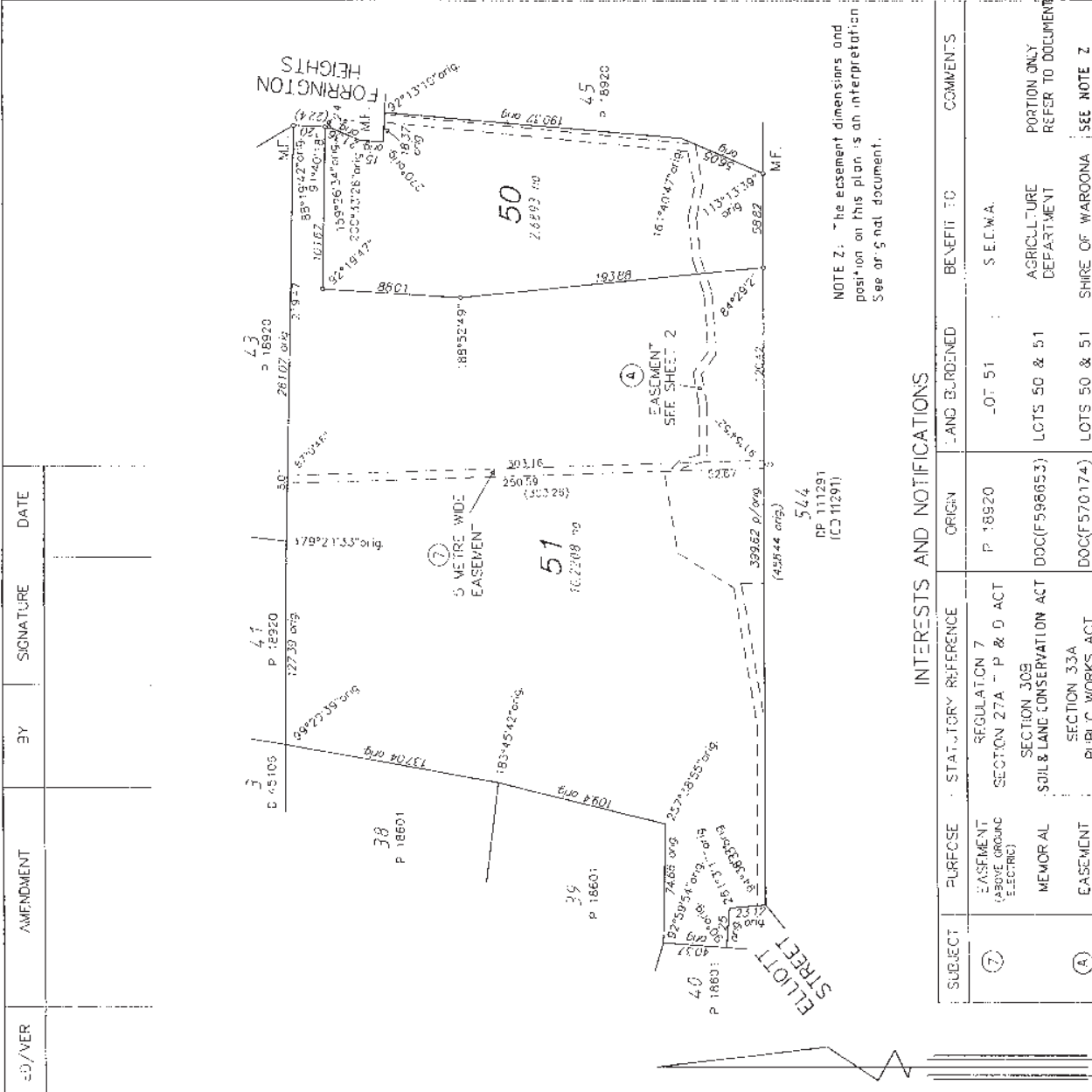
STATEMENTS:

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: DP40550.
PREVIOUS TITLE: 2009-724.
PROPERTY STREET ADDRESS: 137 ELLIOTT ST, WAROONA.
LOCAL GOVERNMENT AREA: SHIRE OF WAROONA.



TYPE	FREEHOLD
PURPOSE	SUBDIVISION
PLAN OF	LOTS 50 & 51
DISTRICT	MURRAY
TOWNSHIP	SHIRE OF WAROONA
LOCAL AUTHORITY	WAROONA
FORMER TENURE	IN
LOT 42	6032(2) 1806
ON P 18920	6032(2) 1837
C/Y 2008-724	6032(10) 4.2
SCALE: 1 : 2500	25 0 25 50 75 100
ALL DIMENSIONS ARE METRES	
SURVYORS CERTIFICATE - Reg 34	
ROBERT I.T. MACWEN Surveyor that this is a correct representation of the survey and/or information from measurements recorded in the field book lodged for the purposes of this plan and that it complies with the relevant provisions of the Survey Act 1985.	
R.I.T. MACWEN Licence Surveyor 10-14-04	
DATE	16-04-04
FILE NO	4880
APPROVED BY	S. HEE
DATE	24/6/2004
WESTERN AUSTRALIAN PLANNING COMMISSION	
Department of Land Information Government of Western Australia	
DEPOSITED PLAN	40550
SHEET	1 OF 2
EDITION	1



NOTE Z: The easement dimensions and position on this plan is an interpretation. See original document.

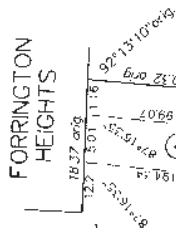
INTERESTS AND NOTIFICATIONS

SUBJECT	PURPOSE	STATUTORY REFERENCE	ORIGIN	LAND BURDENED	BENEFIT TO	COMMENTS
(7)	EASEMENT (ABOVE GROUND ELECTRIC)	REGULATION 7 SECTION 27A P & D ACT	P 18920	LOT 51	S.E.C.W.A.	
(A)	MEMORIAL EASEMENT	SECTION 30B SOIL & LAND CONSERVATION ACT SECTION 33A PUBLIC WORKS ACT	DOC(F598653)	LOTS 50 & 51	AGRICULTURE DEPARTMENT	PORTION ONLY REFER TO DOCUMENT
			DOC(F570174)	LOTS 50 & 51	SHIRE OF WAROONA	SEE NOTE Z

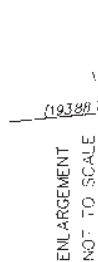
DP 40550 (02)



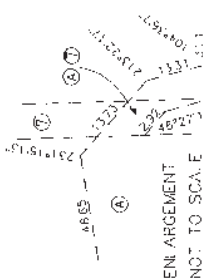
FORRINGTON HEIGHTS



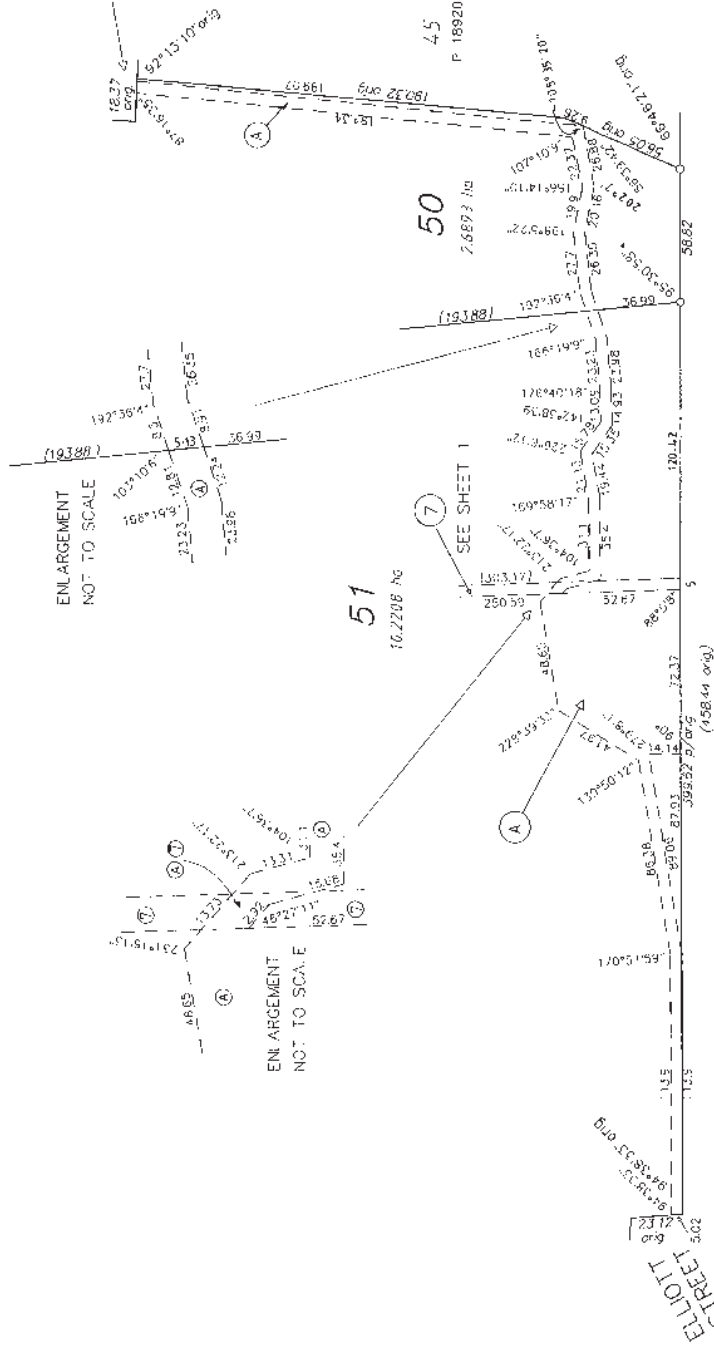
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ENLARGEMENT NOT TO SCALE



ENLARGEMENT NOT TO SCALE



45 P 18920

50 7.6897 AG

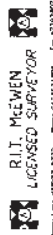
51 16.2208 AG

574

DP 11295
ICD 112911

SCALE 1 : 2000

ALL DIMENSIONS ARE METRES



APPROVED BY: [Signature] 8-4-04
DATE: 12/09/16

Licensed Surveyor

WESTERN AUSTRALIAN PLANNING COMMISSION

DEPOSITED PLAN

40550

SHEET 2 OF 2 EDITION 1 VERSION 1
DATE 24/6/2004

F 598653 MS
30 Jun, 1994 16:00 Perth


MEMORIAL
AGRICULTURE DEPARTMENT

TIME CLOCK

LODGED BY Department of Agriculture

ADDRESS Baron-Hay Court
South Perth

PHONE No. 09 368 3333

FAX No. 09 368 3355

REFERENCE No.


ISSUING BOX No. ~~53~~ **XX 999**

PREPARED BY

Kelly Holyoake
ADDRESS **Baron-Hay Court**
SOUTH PERTH WA 6151
PHONE No. **368 3906** FAX No. **3683654**

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

TITLES, LEASES, DECLARATIONS ETC. LODGED HEREWITH

- | | |
|--------------------------------|---|
| 1. <u>Agreement To Reserve</u> | Received Items |
| 2. <u>Annexure A</u> | Nos. 1 |
| 3. _____ | |
| 4. _____ | |
| 5. _____ | |
| 6. _____ | Receiving Clerk  |

as to portion only
ENDORISING INSTRUCTION

ve 83

OB

EXAMINED

A

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 Book.

INITIALS OF
SIGNING
OFFICER



REGISTRAR OF TITLES

MEMORIAL

SOIL AND LAND CONSERVATION ACT 1945 AS AMENDED
AGREEMENT TO RESERVE & CONSERVATION COVENANT
PART IV A

DESCRIPTION OF LAND	EXTENT	VOLUME	FOLIO
MURRAY LOCATION 180 AND BEING PART OF LOT 11 ON PLAN 18051	PORTION	1949	870

REGISTERED PROPRIETOR OF LAND

RICHARD HATTON BUTLER AND GLENICE BUTLER

The within instrument dated the **Eighth** day of **June** 19 **94** is:

A) An agreement to reserve or a duplicate or copy thereof under section 30 (b) 1, of the Soil and Land Conservation Act over the Land above described.

OR

B) A Conservation Covenant under section 30 (b) 1, of the Soil and Land Conservation Act over the Land above described.

Duration of Agreement or Covenant

In Perpetuity or Limited in Time to the **First** day of **May** ~~94~~ **2024**

Dated this **Twenty Ninth** day of **June** 19**94**

Commissioner / Deputy Commissioner
of Soil and Land Conservation

Witness, an Officer of the
Department of Agriculture



AGREEMENT TO RESERVE

SOIL AND LAND CONSERVATION ACT

SECTION 30

FILE: 940894V01P0B

The registered proprietors, **Richard Hatton BUTLER and Glenice BUTLER** of that land described as a portion of **MURRAY Location 180** and being part of **Lot 11 on Plan 18051** on the Certificate of Title Volume 1949 Folio 870, recognises the value of sound land management practices and the value of protecting areas within the land described on the accompanying Annexure 'A'.

The proprietors and / or the occupiers agree with the Commissioner of Soil and Land Conservation that to promote land conservation this area of land be reserved under Part IVA, Section 30 (B) of the Soil and Land Conservation Act 1945, under the following conditions:

We: Richard Hatton BUTLER and Glenice BUTLER
PROPRIETORS OF THE LAND

Of: 125 South West Highway
WAROONA WA 6215
NORMAL POSTAL ADDRESS

Agree to retain 40.9062 hectares as shown on the accompanying Annexure, cross hatched orange and being within a portion of **MURRAY Location 180** and being part of **Lot 11**, limited in time to the 1st day of May 2024.

The area of land described above is to be managed in such a way as to retain and promote the growth of native vegetation. Existing dams, buildings and building envelopes to be excluded from the Area to be Retained.

Land clearing is permitted for essential services¹ to those building envelopes, fencing of cadastral block boundaries, and those areas specified in writing by the Bush Fires Board for fire control.

Signature of Landholder:  (date) 8/6 /1994

Signature of Landholder:  (date) 8/6 /1994

{An Agreement To Reserve is registered as a memorial on the Certificate of Title}

Signature of Inspecting Officer  (date) 8/6 /1994

¹ Services means SECWA power, Telecom cables and water supplies


















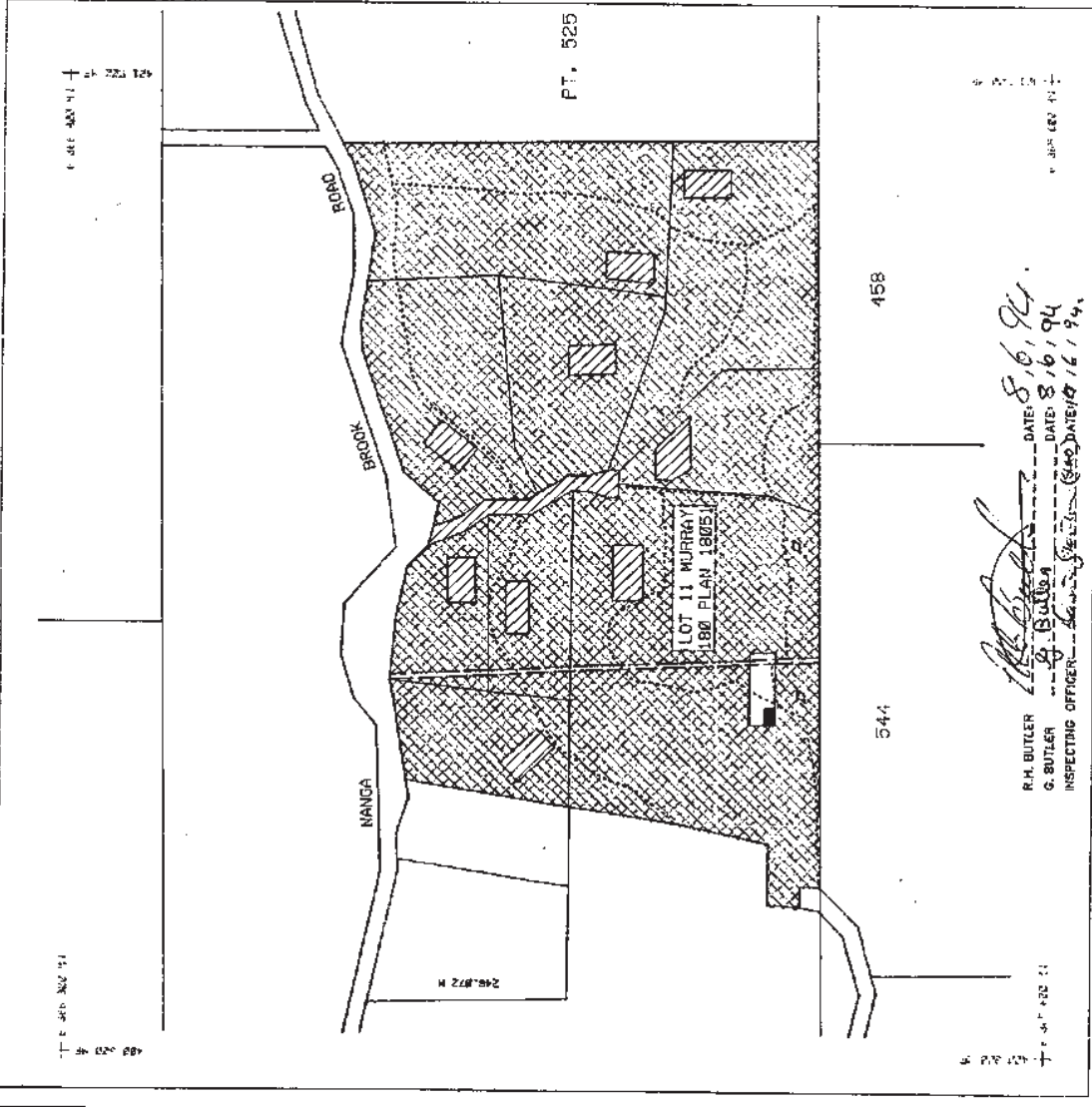
ANNEXURE A

AGREEMENT TO RESERVE

R.H. & G. BUTLER

**LAND DESCRIPTION: LOT 11 OF MURRAY
180 ON PLAN 18051**

- LEGEND:**
-  AREA ABLE TO BE CLEARED - 2,6892 HA
 -  AREA TO BE RETAINED AS NATIVE VEGETATION - 43,9852 HA
 -  SECMA EASEMENT
 -  FIRE BREAK
 -  EXISTING INTERNAL FENCE
 -  SURVEYED BOUNDARIES
 -  ROADS
 -  WATERWAYS
 -  DRAIN
 -  SHARPS
 -  RESERVE
 -  RAIL
 -  SHED
- NOTE:**
- 1. ALL MEASUREMENTS AND AREAS ARE ONLY APPROXIMATE AND SUBJECT TO ON-SITE CERTIFICATION BY A LAND CONSERVATION OFFICER FROM THE DEPARTMENT OF AGRICULTURE.
 - 2. DIGITIZER SET UP - AVERAGE ERROR LESS THAN 0.27%.
 - 3. COORDINATE SCALE OF ORIENTATION 1:100 000.
 - 4. CAPLINE SCALE OF ORIENTATION 1:100 000.
 - 5. CERTIFICATE OF TITLES 1944/873 4588
 - 6. AHC ZONE 98



R.H. BUTLER
G. BUTLER
 INSPECTING OFFICER

DATE: 8.6.94
 DATE: 8.6.94
 DATE: 8.6.94

CHECKED BY: *[Signature]* DATE: 10/6/94
 DRAFTED BY: *[Signature]* DATE: 10/6/94

APPENDIX 2

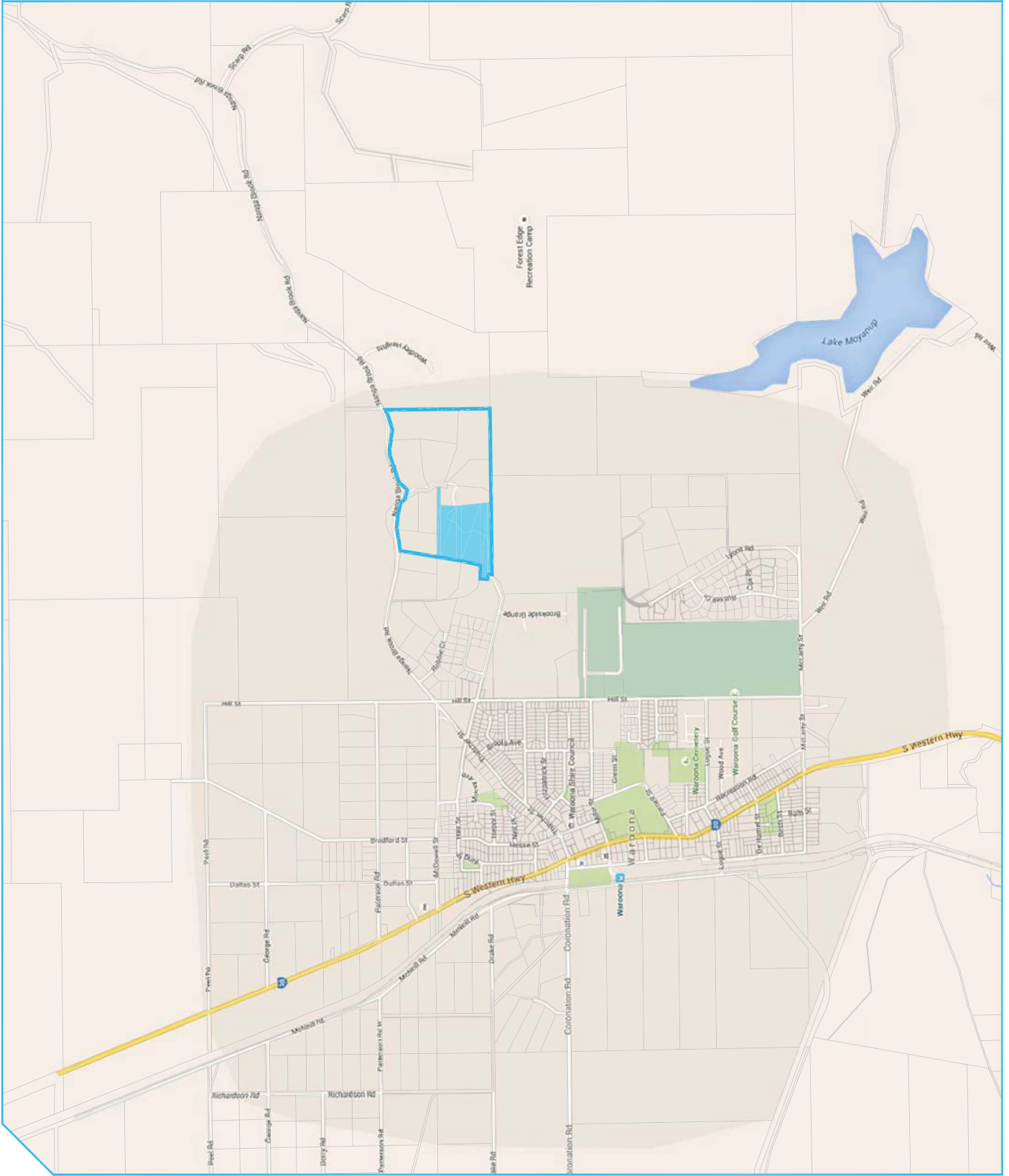
FIGURE 2

LOCATION PLAN

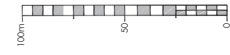
Forrington Heights
Waroona
Shire of Waroona

LEGEND

- SUBJECT LAND BOUNDARY
- STRUCTURE PLAN BOUNDARY



SCALE 1:20,000
SHEET A3



A	LOCATION PLAN	151125	SJ	ST
	REV DESCRIPTION			TYMMDD DRAWN/APPVD

edge
THE ANIMATED PROPERTY
EDGE PROPERTY PROPERTY
Edge Property Property
EP | 151124 01
REV A
Issued for design review only.
Subject to final design & survey.

APPENDIX 3

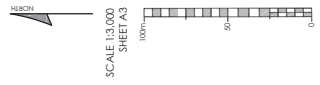
FIGURE 3

CONTEXT AND CONSTRAINTS PLAN

Forrington Heights
Waroona
Shire of Waroona

LEGEND

- STRUCTURE PLAN BOUNDARY AND RURAL RESIDENTIAL
- EXISTING CONTOURS (5m INTERNAL)
- EXISTING LOT BOUNDARY
- PROPOSED LOT BOUNDARY
- LANDOWNER PREVIOUSLY PLANTED TREES AT THE SUBDIVISION STAGE
- STREAM PROTECTION AREA
- STRATEGIC FIREBREAK
- EMERGENCY FIRE ESCAPE
- WATER PIPE (ELLIOT ST ONLY)



A CONTEXT
REV DESCRIPTION 15/12/16 S1 S1
TYMMODD DRAWING APPROVD

edge
THE ANIMALS PROPERTY
Edge Property is Property
MANAGED BY ANIMALS PROPERTY
CLARENCE
W www.animalsproperty.com.au
1800 607 302

DRAWING NUMBER REV A
EP 151124 04

Issued for design review only.
Subject to final design & survey.



SEALED DRIVEWAY
CONNECTED FORRINGTON
HEIGHTS AND ELLIOT STREET.

LAND IDENTIFIED AS RURAL RESIDENTIAL IN
LOCAL PLANNING STRATEGY.

APPENDIX 4

FIGURE 4

ZONING MAP

Forrington Heights
Waroona
Shire of Waroona

LEGEND

LOCAL SCHEME RESERVES

(see scheme text for additional information)

- Major road
- C Public purposes : Cemetery
- Recreation

LOCAL SCHEME ZONES

(see scheme text for additional information)

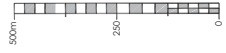
- Rural 1 - general farming
- Rural 4 - hills face
- Rural 6 - rural residential
- Special uses
- Urban 2 - community and civic
- Urban 4 - residential
- Urban 5 - special residential
- Urban 6 - rural living
- Urban development

OTHER CATEGORIES

(see scheme text for additional information)

- R20 R Codes
- RRes1 Rural residential area
- RSH Rural small holdings
- DA1 Development area
- Pciel - Harvey coastal plain catchment boundary
- Special design precinct
- No zone
- Waterbodies
- Structure Plan Boundary

SCALE 1:10,000
SHEET A3



151125 S1 S1
TYMODO DRAWN/APP/VD

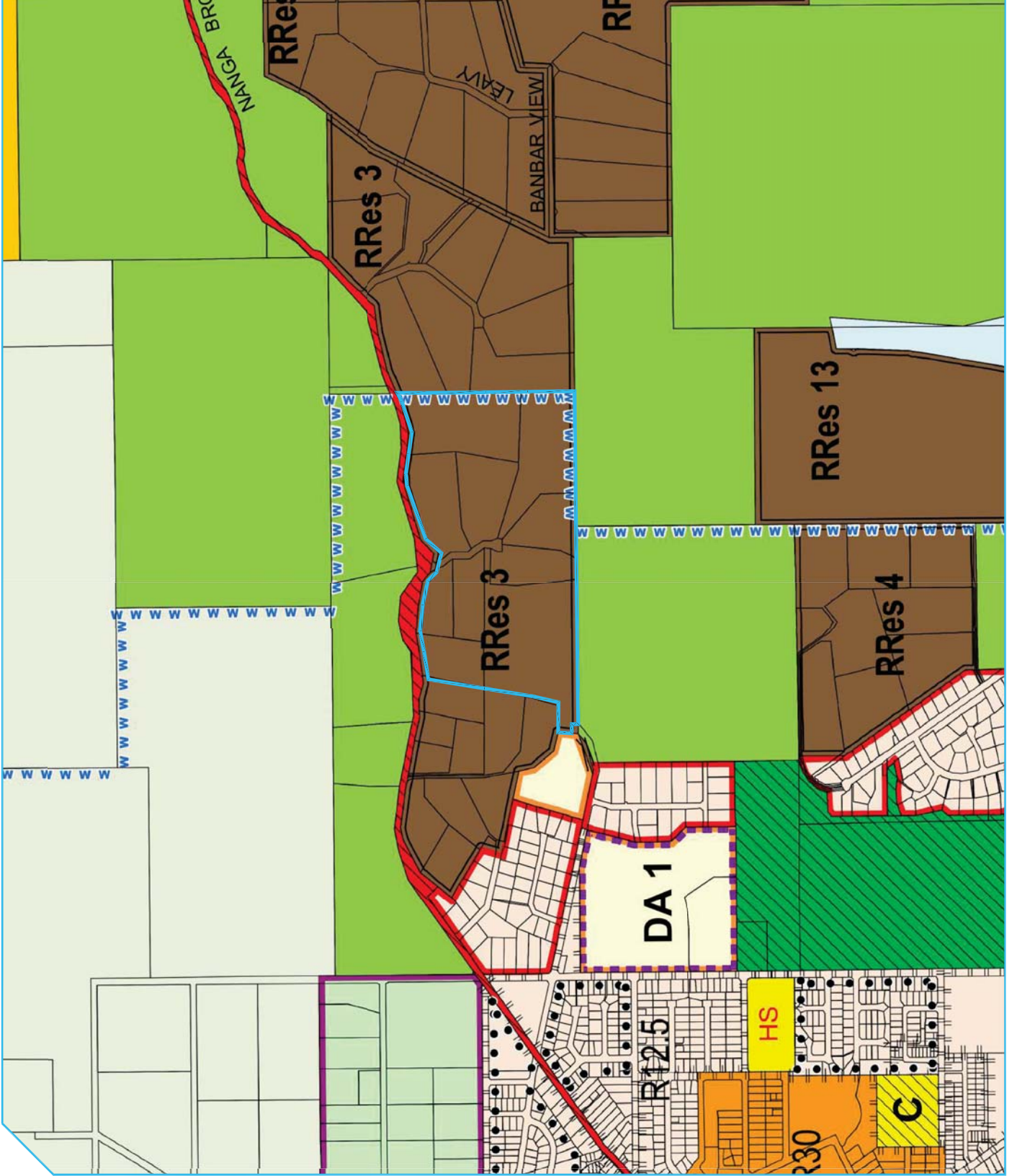
edge
THE ARCHITECTS PROPERTY

Edge Property & Property
10000 WILSON ROAD
MADLEY WA 6450
P www.edgeproperty.com.au
E info@edgeproperty.com.au
A 089 407 3030

DRAWING NUMBER REV
EP 1 511 24 02 A

used for design purposes only
subject to local design authority

A ZONING MAP
REV DESCRIPTION 151125 S1 S1
TYMODO DRAWN/APP/VD



APPENDIX 5

2016

Bush Fire Management Plan

Lot 51 Elliott Street

Waroona

Shire of Waroona

FirePlan WA

May 2016

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 Bushfire Management Plan Lot 51 Elliott Street Waroona Shire of Waroona

Document prepared for:

Richard Butler
 C/- Edge Planning & Property
 134 Hare Street
 Mount Clarence Albany WA 6330

Document Status

Version	Comment	Reviewer	Review Date
Version 1		BWH	23.03.2016
Version 2	Shire of Waroona & DFES		16.5.2016
Version 3	Edge Planning & Landowner		28.5.16

Document prepared by:

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 10 Bracken Road
 THORNIE WA 6108

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 Email: firepla@bigpond.net.au
 ABN:44 116 937 762

FirePlan WA been in operation since 1998 and is a registered business with the Department of Trade and Commerce (Commonwealth Gov't). Mr Harris is the sole owner/operator of the business during that time FirePlan WA has been providing Bushfire Hazard Assessments (to Developers, Local Governments, State Government agencies and the Department for Defence), preparation of Fire Management Plans/ Bushfire Management Plans (Developers and landowners), and Bushfire Attack Level assessments (as part of FMP/BMP) for Landowners as part of the Building Permit Process.

Mr Harris has been involved in the Bushfire Planning, Fire Prevention and Hazard reduction burning programs, Response to bush fires/wildfires, State Fire Coordinator when at the Bush Fires Board/FESA (1975-1998), Fire Ecology and fire behaviour research in conjunction with CSIRO having worked in the Northern Territory (1971-1975) and Western Australia between 1965-1971 then 1975-1998.

Mr Harris has attended the BAL Assessor Short course and is pursuing accreditation and is an experienced Level 2 Bushfire Planning Practitioner- no Training Course or Accreditation is available at this time.

Disclaimer: The measures contained in this fire management plan are considered to be minimum standards and they do not guarantee that a building will not be damaged in a bush fire. All surveys, forecasts, projections and recommendations made in this report associated with the project are made in good faith on the basis of information available to FirePlan WA at the time; and achievement of the level of implementation of fire precautions will depend among other things on the actions of the landowners or occupiers over which FirePlan WA has no control. Notwithstanding anything contained therein, FirePlan WA will not, except as the law may require, be liable for any loss or other consequences (whether or not due to the negligence of the consultants, their servants or agents) arising out of the services rendered by the consultants.

Figure 1 Location Plan

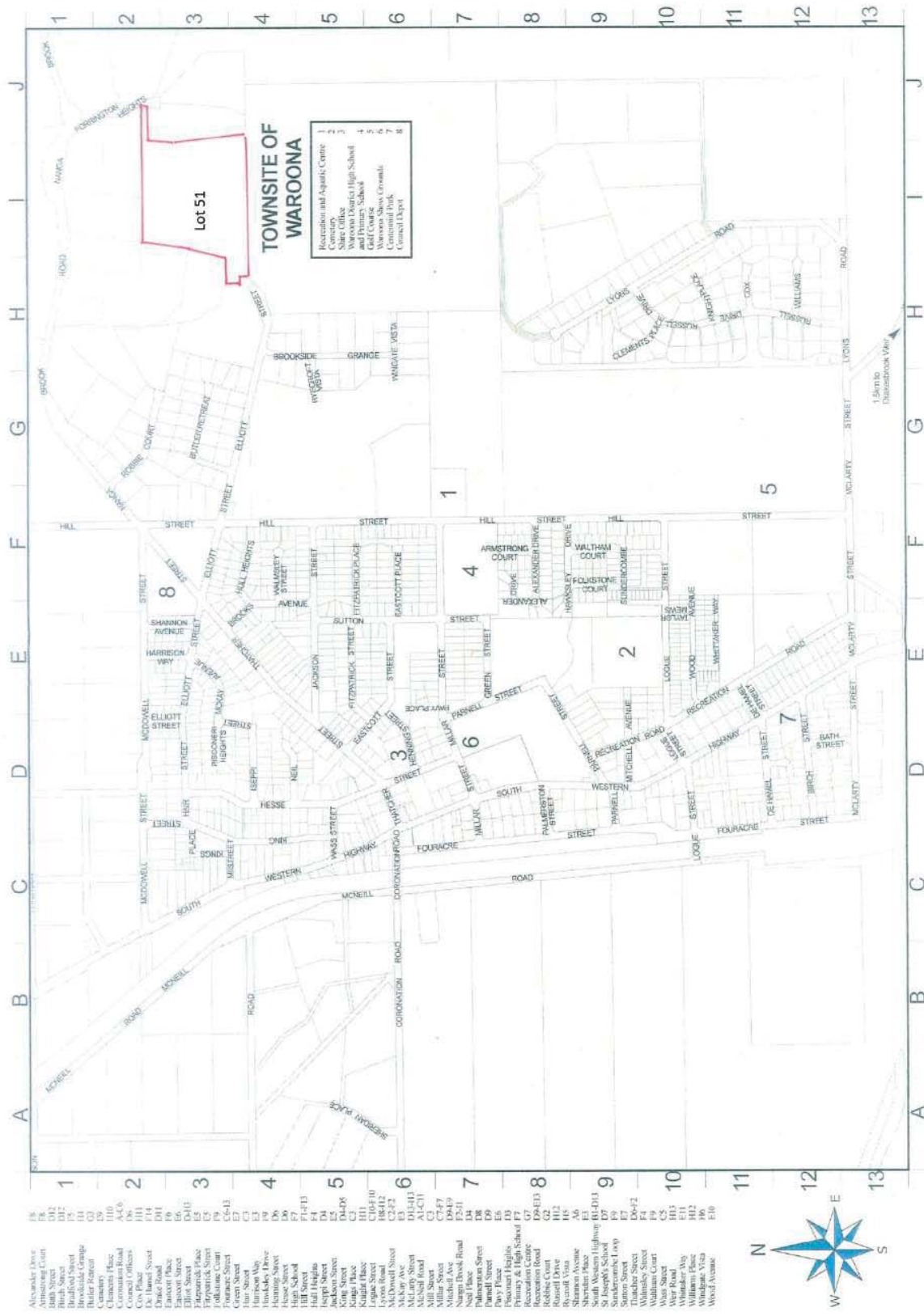
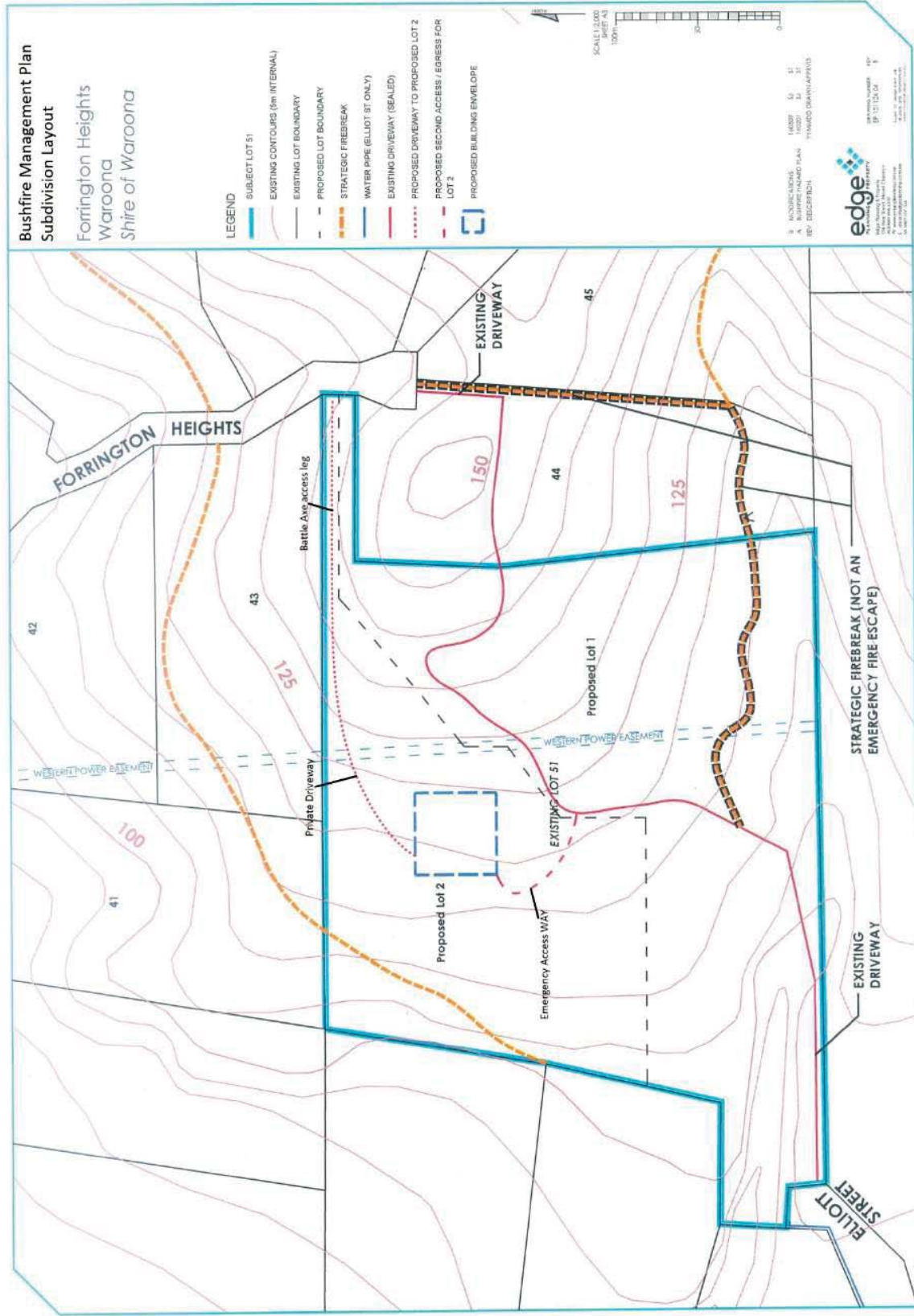


Figure 2 Development Layout



1.0 INTRODUCTION

1.1 Background

The site is accessed off Elliott Street and is located between Elliott Street and Forrington Heights in the Forrington Heights Estate east of the Waroona townsite. See Figure 1.

Lot 51 is the largest lot in the Forrington Heights subdivision and it is proposed to subdivide the site in two Lots.

The Site is subject to the conditions detailed in the Shire of Waroona Town Planning Scheme No. 7 and Planning and Development (Local Planning Schemes) Amendment Regulations 2015 Schedule 2 Part 10 A.

Clause 5 inserts a new “Part 10A –Bushfire Risk Management” into Schedule 2, which establishes deemed provisions relating to bushfire risk management. The deemed provisions apply to all Local Planning Schemes and override any inconsistent local Planning scheme provisions that do not form part of a special control area relating to bushfire.

1.2 Purpose and Application of the Plan

The purpose of this Bushfire Management Plan (BMP) is to detail the fire management methods and requirements that will be implemented for the Subdivision of the Site. (Refer Figure 1: Location Plan).

This Bushfire Management Plan (BMP) satisfies the requirements of the Shire of Waroona and the Western Australian Planning Commission (WAPC) via WAPC and Department of Planning document State Planning Policy 3.7 Planning in Bushfire Prone Areas (December 2015) and the *Guidelines for Planning in Bush fire Prone Areas December 2015* referred to hereafter as the *Guidelines*.

This BMP will outline the responsibility and timing for implementing and maintaining the fire protection measures and strategies contained within this BMP, allocating these responsibilities between individual land owners, the developer and the Shire of Waroona.

As fire management strategies may require altering to meet changing weather, environment and land use needs, it must be advised that the provisions of the *Bush Fires Act 1954* may still be enforced, in addition to this Bushfire Management Plan.

The Local Planning Scheme requires the preparation of a “Bushfire Management Plan” to support the proposed development. This document has been prepared to satisfy that requirement and becomes operational as a condition of subdivision.

This Bushfire Management Plan complies with the acceptable solutions detailed in Appendix 4 of the *Guidelines* and as summarised in ‘Compliance Checklist for Performance Criteria and Acceptable Solutions’ in Section 4.6 of this BMP.

1.3 Stakeholder Consultation

Landowner – Richard Butler.

Developer Project Team Leader – Edge Planning & Property –Steve Thompson

Shire of Waroona - Chris Dunlop - Planner

1.4 Statement of Compliance with SPP 3.7 and Guidelines

This Bushfire Management Plan has been prepared in accordance with the Requirement of SPP 3.7 Planning in Bushfire Prone Areas (December 2015) and the *Guidelines for Planning in Bushfire Prone Areas* (December 2015)

2.0 Spatial Consideration of Bushfire Threat

2.1 Siting of Development

2.1.1 Location

The subject land comprises Lot 51 Elliott Street in the Shire of Waroona and it is proposed to subdivide Lot 51 into 2 as shown in Figure 2.

The site is located at the north eastern end of Elliott Street and also has access onto Forrington Heights. Access to Forrington Heights is through Lot 44 (a relative of Mr Butler) the direct access from Lot 51 onto Forrington Heights has not been constructed. Forrington Heights is a cul de sac off Nanga Brook Road which runs from the South Western Highway (northern edge of Waroona Townsite) and connects to Scarp Road to the east. Scarp Road is a north-south road which links into Willowdale Road to the south and out onto the South Western Hwy between Waroona and Yarloop Townsites thus providing access routes away from the site i.e. to the west or to the south then west. Elliott Street provides access westwards into the Waroona townsite. An existing Emergency Access Way was provided in the original subdivision Linking Forrington Heights with Elliott Street (See Figure 2). This Emergency Access is steep from the southern end of Forrington Heights and is not maintained by anyone. The proposed access into Lot 2 and linking into the driveway into the current access from Elliott Street in Lot 51 is a safer option. This will be discussed in detail in Section 4.4.

The Site consists of Open Forest Class A and Woodland Class B vegetation.

The site will not have Water Corporation water supply available.

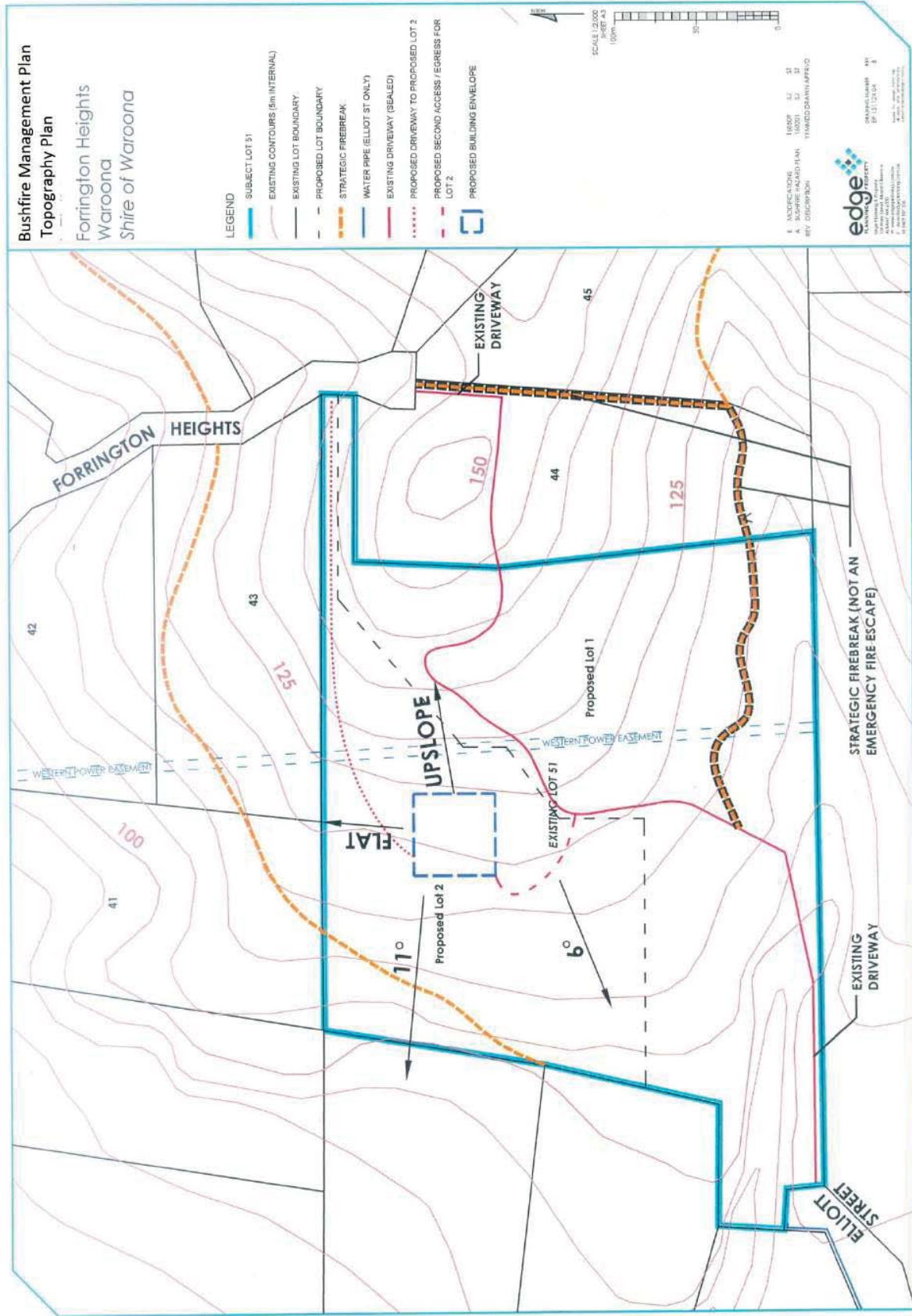
The site was subject to the January 2015 Wildfire and vegetation in the eastern portion of the Site was burnt in the Fire.

Western Power is connected to the site.

2.1.2 Topography

The site generally slopes to the west with a Creek running to the west along the southern boundary of the site. Slopes from the proposed building envelope in proposed Lot 2 is 6° to the west of the Building Envelope, 11° to the south west, upslope to the east and flat to the north. Lot 51 has a dwelling located as shown in Figure 2. Slopes for the site were calculated and used as a factor to determine the setbacks from vegetation and habitable building construction standards in accordance with AS 3959 for proposed development as detailed in Section 4.2.1. An Asset Protection Zone is to be installed around the existing dwellings to the standard detailed in Section 4.2.2.

Figure 3 Slope Factor



2.1.3 Land Use

It is proposed that the Lots will be used as Rural Residential Lots.

2.1.4 Assets

The rural area, dwellings, sheds, retained vegetation, roads, power poles/ lines and Waroona townsite.

2.1.5 Access

Current access to the existing Lot 51 is via Elliott Street and via a private drive way through Lots 51 and 44 to Forrington Heights. It is proposed Lot 2 will have access of Forrington Heights with an Emergency access way linking into the private driveway in proposed Lot 1 and then in a south westerly direction to Elliott Street. This is discussed in detail in Section 4.4.

2.1.6 Water Supplies

Water for Fire Fighting

Mains water will not be supplied.

Fire Hydrants are Located within the Urban area of Waroona townsite.

In addition 10,000 litres of water for fire fighting is to be retained in the domestic water tank in Lot 2.

Domestic Water Supply

Each landowner will be responsible for providing their potable water supply which is detailed in Section 4.4 of this BMP.

2.2 Bushfire History, Fuel Age and risk of Ignition

2.2.1 Bushfire History

The eastern portion of the site was burnt in a wildfire in January 2015 and caused no damage to the existing Dwelling located in Lot 51.

2.2.2 Fuel Age/Loads

In accordance with Table B2 of AS 3959-2009 the Fuel loads Open Forest is 25-35 tonnes/ha (other than areas burnt in the wildfire) and Woodland are 15-25 tonnes/ha.

2.3 Bushfire Hazard Assessment

Bushfire Hazard Assessment is determined by rating the vegetation type in accordance with Appendix 2 Table 3 of the *Guidelines* (see table next page). It is also based on the underlying assumption that land in Western Australia is predominantly undulating with short, steep inclines. In the *Guidelines* bushfire hazard assessment identifies 3 categories: Low, Moderate and Extreme.

Table 1 Hazard Levels and Characteristics copied from the *Guidelines*

HAZARD LEVEL	CHARACTERISTICS
Low	<ul style="list-style-type: none"> • devoid of standing vegetation (less than 0.25ha cumulative area); • areas which, due to climatic conditions or vegetation (e.g. rainforest), do not experience bushfires; • inner urban or suburban areas with maintained gardens and very limited standing vegetation (less than 0.25ha cumulative area); • low threat vegetation, including grassland managed in a minimal fuel condition (i.e. to a nominal height of 100mm), maintained lawns, vineyard and orchards; and • pasture or cropping areas with very limited standing vegetation that is shrubland, woodland or forest with an effective up slope*, on flat land or an effective down slope* of less than 10 degrees, for a distance greater than 100 metres.
Moderate	<ul style="list-style-type: none"> • areas containing pasture or cropping with an effective down slope* in excess of 10 degrees for a distance greater than 100 metres; • unmanaged grasslands; • open woodlands; • open shrublands; • low shrubs on areas with an effective up slope*, on flat land or an effective down slope* of less than 10 degrees, for a distance greater than 100 metres or flat land; • suburban areas with some tree cover; and • forest and woodlands with a permanent grass understorey or at most, a scrub understorey structure consisting of multiple areas of <0.25ha and not within 20 metres of each other or single areas of <1 ha and not within 100 metres of other scrub areas.
Extreme	<ul style="list-style-type: none"> • forests with a scrub understorey which is multi-tiered; • woodlands with a scrub understorey which is multi-tiered; • tall shrubs; and • any area of vegetation not otherwise categorised as low or moderate.

*NOTE Effective slope refers to the slope under the classified vegetation in relation to the subject site.
Distances less than 100 metres will be deemed to be undulating land, rather than a nominated slope.

The bushfire hazard assessment for the site is:-

- | | | |
|---------------------|---|---|
| Open Forest Class A | - | Extreme- forest with a scrub understorey which is multi- tiered. Area burnt In the January 2015 is recovering and eventually will return to pre wildfire bushfire hazard. |
| Woodlands Class B | - | Moderate- open woodland or forest and woodland with a permanent grass understorey. |
| Grassland Class G | - | Low - pasture with very limited standing vegetation that is Shrubland, woodland or forest with an effective down slope of less than 10° |

See Figure 4 Bushfire Hazard Assessment

2.4 Bushfire Attack Level

Bushfire Attack Level (BAL) assessment classifies land into 6 categories based on a combination of vegetation type (fuel type, load and structure), effective slope of the land and the proposed distance from predominant vegetation. BAL assessment for the proposed development is detailed in Section 4.2.

Table 2 BAL Descriptions

Bushfire Attack Level (BAL)	Classified Vegetation within 100 metres of the site and heat flux exposure thresholds	Description of predicted bush fire attack and levels of exposure	Construction Section as per AS 3959
BAL-LOW	Low threat vegetation	There is insufficient risk to warrant any specific construction requirements	4
BAL – 12.5	≤12.5 kW/m ²	Ember attack.	3 and 5
BAL – 19	>12.5 kW/m ² ≤19 kW/m ²	Increasing levels of ember attack and burning debris ignited by windborne embers together with increasing heat flux.	3 and 6
BAL – 29	>19 kW/m ² ≤29 kW/m ²	Increasing levels of ember attack and burning debris ignited by windborne embers together with increasing heat flux.	3 and 7
BAL – 40	>29 kW/m ² ≤40 kW/m ²	There is much increased risk of ember attack and burning debris ignited by windborne embers together with increasing heat flux with the increased likelihood of exposure to flames.	3 and 8
BAL – Flame Zone	>40 kW/m ²	Direct exposure to flames from fire front in addition to heat flux and ember attack.	3 and 9

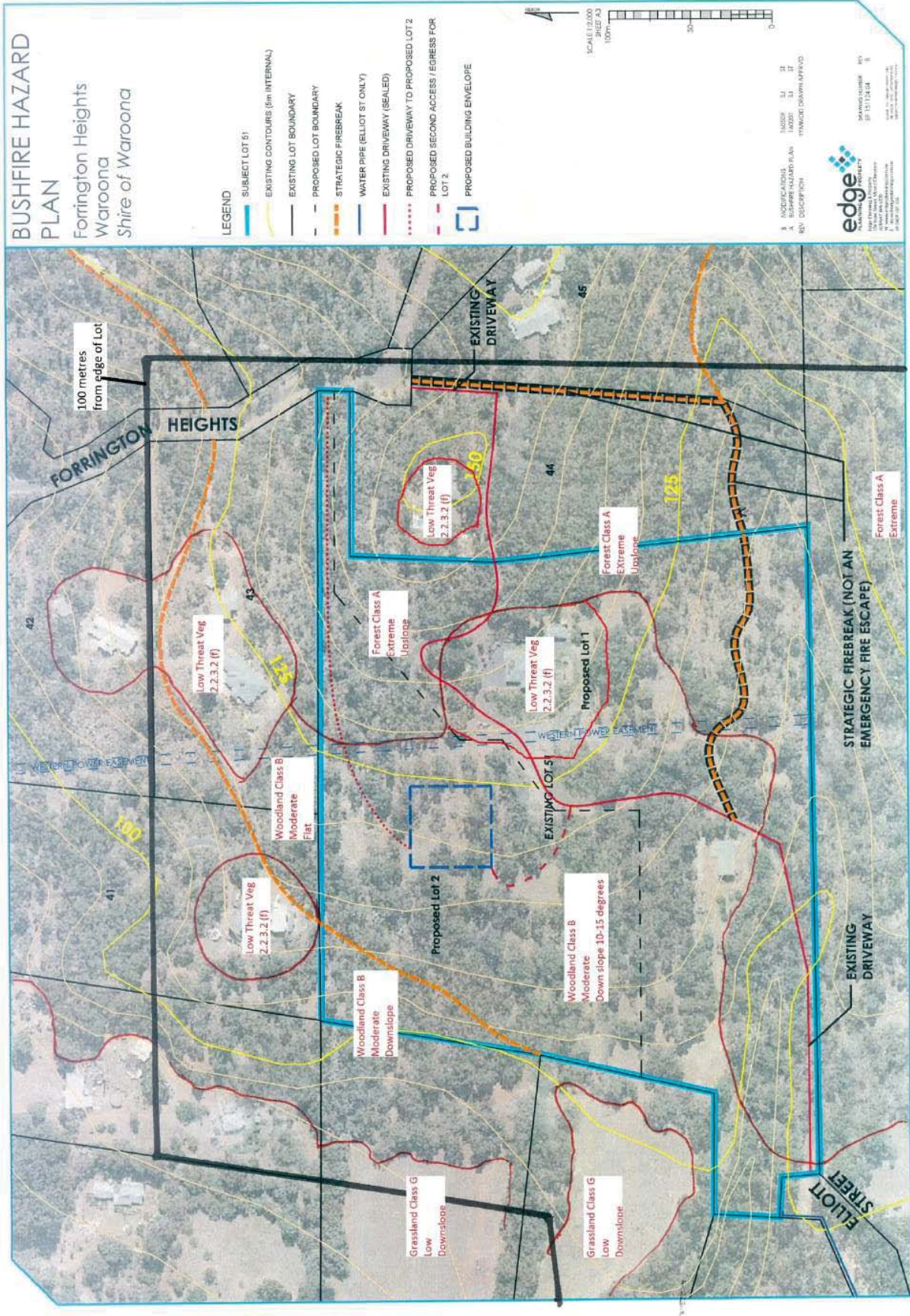
In accordance with AS 3959 2009 Table 2.4.3 the required setbacks for vegetation and various effective slope achieve a BAL 19 for all lots but will require varying widths of Asset Protection Zones to be installed around proposed Habitable building .

Table 3 Indicative BAL ratings and setbacks for each Lot

Lot Number	Vegetation Type	Effective Slope Degrees down slope	Setback from Vegetation metres	BAL RATING
1	Woodland Class B	Upslope	20m minimum 40m installed	Building constructed
2	Woodland Class B	11°	39-53	19
2	Woodland Class B	Upslope	20-29	19
2	Forest Class A	Upslope	31-42	19

See Figure 6 for Asset Protection Zones and BAL ratings for each Lot.

Figure 4 Bush Fire Hazard Assessment



3.0 PROPOSAL COMPLIANCE AND JUSTIFICATION

This Bushfire Management Plan complies with the following Section of SPP-3.7 and the *Guidelines*.

Policy Measure.	Compliance			Comment
	Yes	No	N/A	
6.1 Higher order strategic Planning documents			✓	
6.2 Strategic Planning proposals, subdivision and development applications	✓			Amended Planning Regulations Part 10A Schedule 2 2015
6.3 Information to accompany strategic Planning proposals	✓			BAL rating for each Lot provided in BMP
6.4 Information to accompany subdivision application	✓			BMP prepared in accordance with Guidelines
6.5 Information to accompany Development Applications	✓			BAL rating for each Lot provided in BMP
6.6 Vulnerable or High risk land uses			✓	No Vulnerable or high-risk land use in subdivision
6.7 Strategic Planning proposals, subdivision or development applications in areas with extreme BHL and /or areas where BAL -40 or BAL FZ applies			✓	BAL 19 applies to proposed Lot 2
6.8 Advice from State/relevant authority/s for emergency services to be sought	✓			Shire of Waroona see Section 1.3. DFES Bunbury commented on draft BMP.
6.9 Advice from State/relevant agency/authorities for environmental protection sought			✓	
6.10 Bushfire conditions may be imposed	✓			Notification 70A on Land Title Section 5.1.2
6.11 Precautionary Principle				Acceptable solutions complied with see Section 4.6

Statement against Relevant Documents				
Guidelines for Planning in Bushfire Prone Areas	✓			Performance Criteria and acceptable solution checklist Section 4.7
Any Existing Bushfire Management Plan		✓		
Any existing BHL assessment or BAL assessment prepared over the Site		✓		
Local Planning Strategies references to bushfire risk management	✓			Amended Planning Regulations Part 10A Schedule 2 2015
Local Planning Scheme Provisions relating to bushfire management	✓			Amended Planning Regulations Part 10A Schedule 2 2015
Any applicable structure Plans , Special control area provisions, previous planning approvals or similar referencing bushfire risk management applicable to the subject site	✓			Amended Planning Regulations Part 10A Schedule 2 2015
Any relevant landscaping plans applicable to the subject Site			✓	
Firebreak Order applicable to subject site	✓			Shire of Waroona comment Section 4.4.2
AS 3959 Construction of Buildings in Bushfire Prone Areas	✓			Detailed in Section 4.2
BMP complies with Acceptable solutions	✓			Checklist Section 4.7

3.1 DISCLAIMER

In the event of large bushfires it is essential that landowners understand that fire appliances may not be available to protect each dwelling/building, landowners are responsible for the protection of their own assets which may require additional protection above the minimum detailed in this Bushfire Management Plan.

4.0 BUSHFIRE RISK MANAGEMENT MEASURES

The bushfire management strategies detailed in this BMP are designed to comply with the Performance Criteria and Acceptable Solutions detailed in Guidelines for Planning in Bushfire Prone Areas December 2015

4.1 Element 1 – Development Location

Proposed habitable buildings in proposed Lots 2 will in general be located in a cleared area to open parkland areas (see Figure 3) with an increased construction standard to comply with AS 3959-2009 (or as amended). The required setback (determined in Table 2.4.3 of AS 3959) managed to the Asset Protection Zone (APZ) standard with dwellings complying with AS 3959 BAL construction standards. Complies with acceptable solution A1.1.

4.2 Element 2 – Siting and Design of Development

4.2.1 Setback from Classified Vegetation

Bush Fire Prone Areas have been declared for this site, the minimum distance of 100 metres (from vegetation rated ‘Moderate’ or ‘Extreme’) may be reduced in compliance with AS 3959. Under AS 3959 as the distance from the vegetation is reduced, the construction standard must be increased. Table 2.4.3 AS 3959-2009 sets out this relationship and Section 2 of AS 3959-2009 details the methodology of determining the Bushfire Attack Level (BAL).

BAL (Bushfire Attack Level) Determination Using Methodology from Section 2.2.1 of current adopted AS 3959- 2009 and Table 2.4.3 which applies to this development:

Figure 5 Relationships of APZ and HSZ to Development

Figure 15: Separation distance required where no additional construction standards are proposed
In the absence of additional construction standards a minimum separation distance of 100 metres between buildings and the hazard must be provided in order to protect them from burning debris, radiant heat and direct flame contact

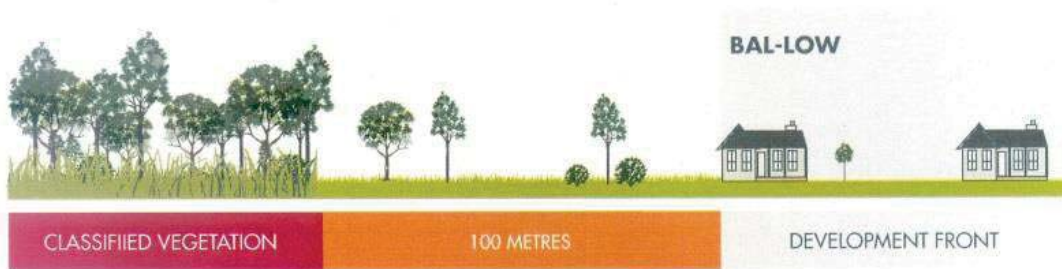


Figure 16: A reduced separation distance may necessitate increased construction standards
It may be possible to reduce the minimum distances, for example by increasing the construction standard of the building – in this example the building would need to be constructed to BAL-29



A construction standard in accordance with AS 3959 -2009 BAL 19 Sections 3 & 6 will apply to proposed Lot 2 with setbacks from classified vegetation. The setbacks are to be managed to the Asset Protection Zone

Standard. The dwelling in proposed Lot 1 has been constructed since the original development and was not required to comply with AS 3959.

In accordance with AS 3959-2009 Section 3.2.3 adjacent structures such as garages, carport or shed that is not attached to a habitable building must be located not less than 6 metres away from a habitable building otherwise the garage, free standing carport or shed must be constructed to the same standard as the habitable building

Table 4 Asset Protection Zones around each Habitable Building

Lot Number	Bal rating	Setback from Vegetation	Width of Asset Protection Zone from walls of dwellings- metres			
			North	East	South	West
1	Constructed prior to AS 3959 applying to site	Minimum 20m required 40 m installed	40	40	40	40
2	19	39-53	31- flat	31 upslope	31 - flat	50 down slope

Indicative BAL ratings and minimum APZ are shown in the above Table and in Figure 6. The setbacks in the Table have been determined using the Slope factor shown in Figure 3.

The BAL ratings shown in Figure 6 have been measured from the outer edge of the Building Envelope and depending on where the habitable building is located in the Building Envelope the area of the APZ may be reduced.

In accordance with AS 3959-2009 Section 3.2.3 Sheds, Garages or similar roofed structure are to be located a minimum of 6 metres from all habitable buildings otherwise they are to be constructed to the same standard as habitable buildings.

The BAL ratings nominated in this Bushfire Management Plan may be confirmed/reduced upon Site specific assessment undertaken by a suitably Qualified Fire Consultant in accordance with Section 2 of AS 3959-2009. In the event that such an assessment nominates a BAL rating that differs from this BMP a copy of the assessment shall be submitted to the Shire of Waroona as part of the Building Permit Application.

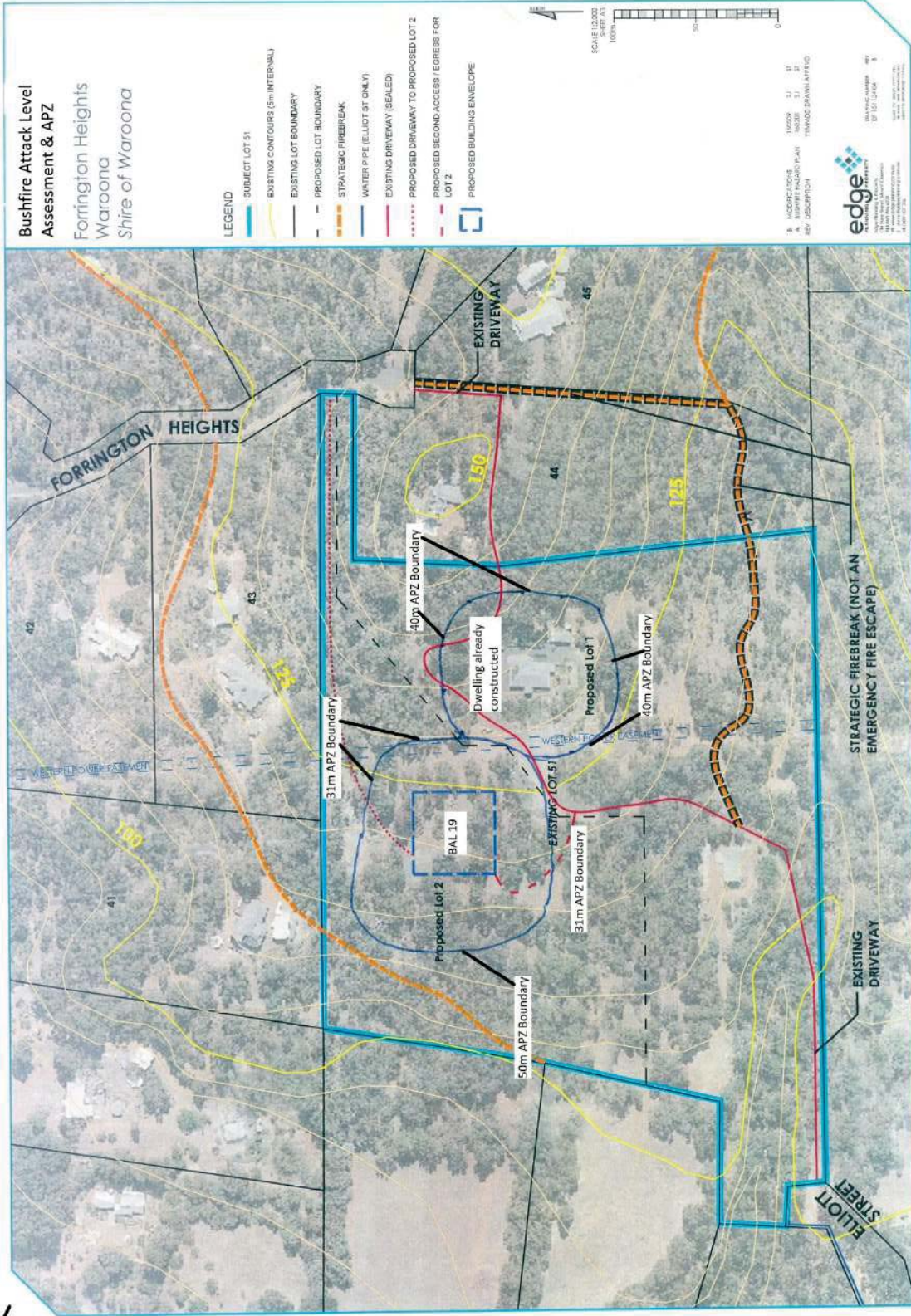
Lot 1

The existing house has a 30-40 metre Asset Protection Zone around the building which consists of Driveways, Paving, Lawns, reticulated garden and an area low threat vegetation (maintained annually) to the east. The existing dwelling and buildings were not damaged in the January 2015 wildfire. A minimum 40 metre building protection Zone is to be maintained.

Lot 2

The proposed habitable building in Lot 2 will be setback a minimum of 31 metres from the Forest (upslope to the east) the setback required to the north and south is to be 31 metres and the setback to the west (downslope) is to be 50 metres.

Figure 6 BAL assessments and Asset Protection Zone for Lot 1 & 2



4.2.2 Asset Protection Zone

The aim of the Asset Protection Zones (APZ) is to reduce bush fire intensity close to buildings, and to minimise the likelihood of flame contact with buildings.

The Asset Protection Zone is a low fuel area immediately surrounding a building complying with Acceptable Solution A2.1 detailed in the *Guidelines*.

Asset Protection Zone must fulfil the following conditions:-

- The width of the APZ (20 metres) is to be measured from the walls of the habitable building.
- Loose flammable material within the APZ should be removed to reduce the fuel load to less than 2 tonnes per hectare and this is to be maintained to this level.
- All grasses within the APZ and the remainder of the site are to be maintained to a maximum height of a 50mm.
- The crowns of trees are to be separated where possible to create a clear separation distance of 10 metres between adjoining or nearby trees crowns.
- Prune lower branches of trees within the APZ (up to 2 metres off the ground) to stop a surface fire spreading to the canopy of the trees. A small group of trees within close proximity to one another may be treated as one crown provided that the combined crowns do not exceed the area of one large or mature crown for that species
- There are to be no tree crowns or branches overhanging the building or asset and a minimum horizontal clearance of 2 metres is required between tree branches and buildings or assets.
- Do not clump shrubs close to building. Ensure that there is a gap of at least 3 times the height (at maturity) of the shrub away from the building.
- Install paths and non-flammable features immediately adjacent to the habitable building to create a non-flammable area of a minimum area of 3 metres wide.
- Trees or shrubs in the APZ are to be cleared of any dead material.
- Fences, sheds and structures within the APZ should be constructed of non-flammable material and be clear of trees and shrubs as per building requirements.
- Sheds within the APZ should not contain flammable materials.

Other Fire Safety measure to be included in the Protection of Buildings

- Gas Cylinders should be isolated from the Flame Zone and should be stored in an area that is clear of all flammable material. Gas vent valves should face away from the building and anything flammable. Gas cylinders should be securely tethered with non-flammable fastenings to prevent toppling over.
- Fire wood storage should be at least 20 metres (on the ground) from the building or contained in sealed nonflammable container.
- Driveways and access ways must allow for the safe passage of a fire appliance to all buildings and assets on the land.
- Roof gutters should be free of leaves and other combustible material.
- Roof mounted evaporative air coolers should be fitted with ember proof screens to the filter media to reduce the possibility of bushfire embers igniting the air cooler.

4.3 Hazard Separation

The Asset Protection Zone will be installed prior to occupancy of any of the proposed Buildings to the standard detailed in Section 4.2 above are to be maintained to the Asset Protection Zone

standard in perpetuity by the Landowner. The landowner must maintain bushfire fuels outside the APZ to a minimum of 5-8 tonnes/ha for Jarrah/Marri forest and woodlands and grass is to be mown/grazed to a maximum of 50mm in height. See also Shire of Waroona Firebreak Notice and Bushfire Information Brochure.

See Table 6 for Landowner Annual Fire Prevention Works

4.4 Element 3 Access

4.4.1 Road System

Current access to Lot 51 is off Elliot Street but also has an unconstructed access to Forrington Heights. Day to day access to Forrington Heights is through Lot 44 (a relative of the current owner of Lot 51) via a private driveway.

It is proposed that a Battle Axe access and private driveway is proposed off Forrington Heights to provide legal access to proposed Lot 2.

Lot 2

From the end of the Battle axe access a private driveway would be constructed by the landowner of Lot 2 to the building envelope. This would be the day to day access for Lot 2 owners/occupiers.

From the southern end of the building envelope an emergency access way is to be installed by the landowner of Lot 2 southwards to meet up with the private driveway off Elliott Street (Lot 1 access) this would enable two access /egress routes from Elliott Street to Forrington Heights. The Linkage for both Lots to use one another's access is to be placed in an easement in gross for the use by the public and emergency service. Private driveways are to comply with acceptable solution as detailed in Section 4.4.2 and Table 5.

4.4.2 Private Driveway

Private driveways are to be installed in accordance with acceptable solution A3.5 Table 4. A turn around area designed to accommodate a 3.4 fire appliance and to enable the fire appliance to turn around safely is required within 50 metres of the dwelling. See Figure 7 for turnaround specifications. Passing bays are required to be installed every 200 metres and must comply with the Standards detailed in Figure 7.

4.4.3 Internal Firebreaks

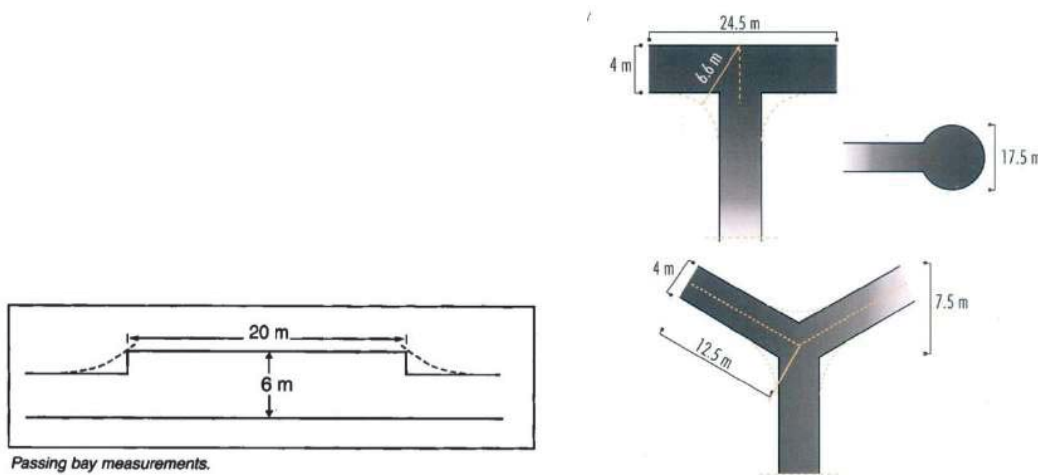
Notwithstanding the provisions of this Fire Management Plan, landowners of all lots within the site must comply with the requirements of the Shire of Waroona Firebreak Notice and Fire Control Information, as published annually. The developer is to install firebreaks in accordance with the Firebreak Notice and Fire Control Information and maintained by the Landowner annually.

A copy of the Shire of Waroona Firebreak Notice and Bushfire Information Brochure is available on the Shire Webpage as it is amended from time to time.

Table 5. Vehicle Access Technical Requirements as detailed in *Guidelines Planning in Bushfire Prone Areas 2015*

Technical Requirements	A3.2 Public Roads	A3.3 Cul De sac	A3.4 Battle axes	A3.5 Private Driveways	A3.6 Emergency Access Ways	A3.7 Fire Service Access Routes
Minimum trafficable surface (m)	6*	6	4	4	6	6
Horizontal clearance (m)	6	6	6	6	6	6
Vertical clearance (m)	4.5	N/A	4.5	4.5	4.5	4.5
Maximum grade over <50 metres	1 in 5	1 in 5	1 in 5	1 in 5	1 in 5	1 in 5
Minimum weight capacity (t)	15	15	15	15	15	15
Maximum crossfall	1 in 33	1 in 33	1 in 33	1 in 33	1 in 33	1 in 33
Curves minimum inner radius (m)	8.5	8.5	8.5	8.5	8.5	8.5
		Maximum 200 metres Long	Maximum 600 metres Long	Passing bays and turn around areas are required	Passing bays and turn around areas are required	Passing bays and turn around areas are required

Figure 7 Turn Around area and Passing Bay Specifications



Passing Bays are required every 200 metres and turn around areas every 500 metres along private driveways. A turn around area is required within 3 metres of the domestic water supply and within 50 metres of the house.

4.5 Element 4 Water Supplies

4.5.1 Water for Fire Fighting

Fire Hydrants are located in the Waroona Townsite which is within 5 minute travel time from this site. Complies with acceptable solution A4.1.

In addition 10,000 litres of water for fire fighting is to be retained in the domestic water tank.

4.5.2 Domestic Water Supply

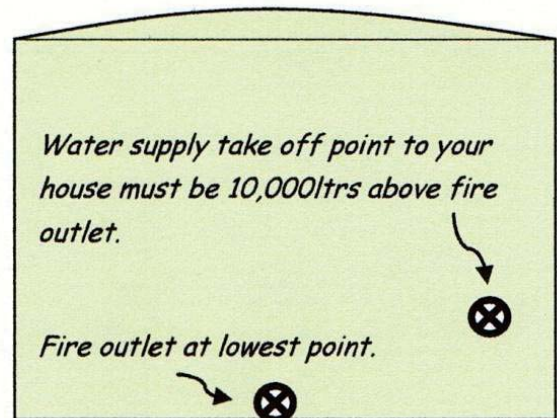
Each landowner is to supply their domestic water (minimum 120,000 litre tank) or as determined by the Shire of Waroona.

Each property shall at all times store a minimum of 10,000 litres of water for fire fighting purposes and each owner shall be responsible to replenish water used by fire fighters at the property owner's cost.

To enable standardisation of access to this supply, each private domestic vessel shall be fitted with a minimum 50mm Full Flow Valve and a 50 mm male camlock fitting with a blanking cap. This coupling and valve shall be installed and maintained in a correct operating condition at all times at the property owner's expense. The fire fighting outlet is to be placed at the bottom of the tank and the domestic outlet above to bottom of the tank so that 10,000 litres of water remain in the tank at all times. See Diagram Below.

The domestic vessel shall be located in an area that will enable fire appliances to back up onto hardstand and turn around area to within 3 metres from the tank. Access is to be suitable for a large 15 tonne fire appliance with a 17.5 metre turning circle or as shown in Figure 7. Complies with acceptable solution A4.3

Figure 8 Domestic Water Supply fittings



4.6 Additional Measures

4.6.1 Total Fire Ban Days

A Total Fire Ban is declared because of the extreme weather conditions or when fires are seriously stretching fire fighting resources. A Total Fire Ban is declared by DFES following consultation with Governments.

When a Total Fire Ban is declared it prohibits the lighting of any fires in the open air and any activities that might start a fire. The ban includes all open fires for the purpose of cooking or camping. It also includes the use incinerators, welding, grinding, soldering and gas cutting.

The Shire of Waroona may also impose a vehicle movement ban which may apply to the “Site” and may affect the movement of people within the “Site”.

The Department of Fire and Emergency Services and the Shire of Waroona are to continue to educate the public on what a Total Fire Ban means and what actions members of the public need to take.

4.6.2 Use of Machinery, Tools, Vehicles and Tractors

The Shire of Waroona is to continue to provide the community with advice on bush fire prevention and preparedness through brochures, newspaper articles, the Firebreak Notice and Bushfire Information Booklet issued to rate payers and on their web site.

The use of machinery such as tractors and vehicles can be controlled by the Shire of Waroona as detailed in the Bush Fires Act 1954 and Regulations. Landowners within this development will need to comply with these directions.

The use of open fires for the purpose of cooking or camping, incinerators, welding, grinding, soldering and gas cutting are controlled by the Shire of Waroona through its powers in the Bush Fires Act 1954 and Regulations.

4.6.3 Public Education

The developer is to provide a copy of the current Shire of Waroona *Firebreak Notice and Bushfire Information Booklet*, *The Homeowners Survival Manual* and *Prepare Act Survive* brochure and this *Bushfire Management Plan* at the time of sale of a Lot. It is essential that the Real Estate agent handling the sale of Lots on behalf of the Developer advises potential landowners that a Bushfire Management Plan exists and the modification of vegetation and ongoing fuel reduction will be required within this development.

Other Public Safety and Community information on Bush Fires is available on the Department of Fire and Emergency Services Authority web site www.dfes.wa.gov.au and the Shire of Waroona website www.waroona.wa.gov.au.

4.6.4 Fire Safer Areas

In the event of a bush fire, the Incident Controller of Fire Fighting operations will advise if an evacuation is necessary and, in conjunction with the Shire of Waroona Emergency Services, direct residents to Safer Refuge Areas.

4.7 Compliance Checklist Performance Criteria and Acceptable Solutions

Property Details: Lot 51 Elliott Street Waroona

Local Government: Shire of Waroona

Element		Compliance			Comment
Element 1: Location					
		Yes	No	N/A	
A1.1	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.	✓			Subdivision/development is located on land that is not subject to either an extreme bushfire hazard or requires construction to BAL 40 or BAL FZ
Element 2: Siting and Design of Development					
A2.1	Asset Protection Zone	✓			31 metres upslope from proposed dwelling Section 4.2
A2.2	Hazard Separation Zone			✓	Hazard reduction outside the APZ is to be maintained to 5-8 tonnes/ha. Section 4.3
Element 3: Vehicular Access					
A3.1	Two different vehicular access routes, both of which connect to the public Road network, provide safe access and egress to two different destinations and be available to residents/the public at all times and under all weather conditions	✓			
A3.2	Public Roads	✓			Section 4.4
A3.3	Cul-de-sacs			✓	
A3.4	Battle Axe Access			✓	
A3.5	Private driveways	✓			Reciprocal right of way off Forrington Heights
A3.6	Emergency access ways	✓			Easement in gross to provide emergency access from Elliott Street to Forrington Heights
A3.7	Fire services access routes			✓	
A3.8	Firebreaks				Shire of Waroona Firebreak Notice
Element 4: Water Supplies					
A4.1	Reticulated areas	✓			Fire Hydrants located in Waroona townsite
A4.2	Non-reticulated areas			✓	
A4.3	Individual Lot non reticulated area	✓			10,000 litres in domestic tank

I declare that the information provided is true and correct to the best of my knowledge.

Name of Person Preparing the Fire Management Plan:

Full Name: *B.W. Harris* for FirePlan WA

Date: 28/05/2016

Developer:

Full Name: _____ Signature: _____

Date:

5.0 IMPLEMENTATION AND ENFORCEMENT OF BUSHFIRE MANAGEMENT PLAN

This Bushfire Management Plan becomes operational as a condition of development approval.

In implementing this Bushfire Management Plan, the following responsibilities have been determined.

5.1 Responsibilities

5.1.1 Property Owners Responsibilities

To maintain the reduced level of risk and threat of fire, the owners/occupiers of all lots created by this proposal will be responsible for undertaking, complying and implementing measures protecting their own assets from the threat and risk of bush fire:

- Maintaining the property in good order to minimize potential bushfire fuels to mitigate the risk of fire on the property;
- Ensuring that the Subject land complies with the Shire of Waroona Firebreak Notice and Fire Control Information. To be carried out annually;
- Ensuring that new dwellings are constructed to AS 3959 Table 3 Section 4.2. There will be a Section 70A notification on the Certificate of Title for each Lot advising the Landowner of the existence of this Bushfire Management Plan;
- Complying with the instructions of DFES Fire Services, the Shire of Waroona and/or volunteer fire services in maintaining the property or during the event of a bushfire;
- Ensuring that in the event an evaporative air conditioner is installed at the property, suitable external ember screens are installed to roof mounted units and that they comply with AS 3959, check annually;
- Install Asset Protection Zone at the time of Site works and maintains annually the APZ detailed in Section 4.2;
- Maintain private drive way, Reciprocal right of way access and easement in gross annually;
- Install domestic water supply as detailed in Section 4.5; and
- Implement Landowners responsibilities detailed in Table 5 carry out Annual landowner Fire Prevention Activities detailed in Table 6.

5.1.2 Developer's Responsibilities

As a condition of development the Developer shall be required to carry out works described in Section 6 of this Fire Management Plan to the satisfaction of the WAPC

- A notification pursuant to section 70A of the Transfer of Land Act 1893 is to be placed on the certificate(s) of title of the proposed lot(s). Notice of this notification is to be included on the diagram or plan of survey (deposited plan). The notification is to state as follows; *'The lots are subject to a bushfire management plan'*

- Install firebreaks and gates as detailed in Section 4.4;
- Supply a copy of this Bushfire Management Plan and *The Homeowners Bush Fire Survival Manual, Prepare Act Survive (or similar suitable documentation)* and the Shire of Waroona *Firebreak Notice and Fuel Hazard Reduction Notice* to each affected property purchaser on sale of the allotment;

5.1.3 Shire of Waroona

The responsibility for compliance with the law rests with individual property owners and occupiers and the following conditions are not intended to unnecessarily transfer these responsibilities to the Shire of Waroona.

The Shire of Waroona shall be responsible for:

- Ensuring compliance with the current adopted AS3959, of any new habitable structure, renovation or extension to existing dwellings within each lot that is required to have an increased construction standards, is undertaken at the time of Building Permit Application;
- Enforcing the Shire of Waroona Firebreak Notice;
- Ensuring the development complies with the Bushfire Management Plan on behalf of the WAPC.

6.0 ASSESSMENT OF FIRE MANAGEMENT STRATEGIES

All the actions and recommendations in this BMP, meet the *Bushfires Act and Regulations 1954* compliant with the acceptable solutions detailed in *Guidelines for Planning in Bushfire Prone Areas* and are sound, measurable and practical having been used and proven over time. These recommendations take into account the various costs, alternatives available, benefits for protection of residents and the wider community, the environment and biodiversity protection.

This Bushfire Management Plan will be implemented as a condition of development for the site.

It will be the responsibility of the developer to implement the provisions of this Bushfire Management Plan in order to seek clearance of those conditions of development.

Likewise it is the responsibility of the Shire of Waroona to ensure that all standards required in this Bushfire Management Plan are met by the developer prior to clearing any conditions of subdivision relating to this Bushfire Management Plan.

After any major fires that may occur during or once this development has been completed, the Shire of Waroona may conduct a Post Incident Analysis of the fire, which may include identifying and implementing any changes that may be needed to improve the performance of fire prevention strategies.

7.0 WORK PROGRAM

Table 6 Works Program Prior to clearance of conditions of development

Developer Responsibilities				
Activity	Responsibility	Maintenance	Responsibility	Timing
Implement fire protection measures as detailed in Sections 4.2	Developer	Annually maintenance required	Developer until Lot Sold	Developer clearance of Condition of subdivision
Install reciprocal right of way onto Forrington Heights Section 4.4	Developer	Annual maintenance required	Developer until Lot Sold	Developer clearance of Condition of subdivision
Compliance with Firebreak Notice. Details Section 4.4.	Developer	Compliance with Firebreak Notice annually	Developer until Lot Sold	Developer clearance of Condition of subdivision
Fire Hydrant located in Waroona townsite	Water Corporation	Annual Maintenance required	Water Corporation	Annually
Section 70 A notifications on Title of each Lot advising BMP applies to each Lot.	Developer	Maintain Site in accordance with Developer responsibilities	Developer until Lot Sold	Developer clearance of Condition of subdivision
Provide a copy of following a sale of Lot:- <i>Bushfire Management Plan</i> <i>Home Owners Survival Manual</i> <i>Prepare Act Survive</i> <i>Fire Control Notice</i>	Developer	Landowners to familiarise themselves and annually update actions in the event of fire and annual maintenance.	Landowner	Developer clearance of Condition of subdivision
Landowner Responsibilities				
Compliance with Firebreak Notice. Details Section 4.4	Developer	Compliance with Firebreak Notice annually	Landowner	Completed by 1st November each year.
Install private driveways and easements in Gross	Landowner	Annual	Landowner	Completed by 1st November each year.
Landowner may request BAL reassessment to confirm or amend BAL rating. Copy of report to Shire of Waroona	Landowner	Ensure Building design complies with relevant AS 3959 BAL rating	Shire of Waroona to approve Building Permit	Re-assessment completed report sent to Shire of Waroona as part of Building Permit Application
Maintain Asset Protection Zone annually as detailed in Section 4.2	Landowner	Annual Maintenance	Landowner	Completed by 1st November each year.
Install Domestic Water Supply as detailed in Section 4.5.2	Landowner	Annual Maintenance	Landowner	Completed by 1st November each year.

Table 7 Annual landowner Fire Prevention Activities

Timing	Activity
Autumn to Winter (May-August)	<p>Tree Pruning – remove lower branches; check that power lines are clear.</p> <p>Reduce fuel levels around the house – clear long grass, leaves, twigs & flammable shrubs.</p> <p>Ensure petrol and other flammables are safely stored away from the main dwelling.</p> <p>Make sure your firefighting equipment is in good working order and serviced where required.</p> <p>Make sure all resident are aware of your emergency plan including evacuation routes.</p> <p>Chemical spraying of firebreaks and low fuel zones – first and second applications.</p>
Spring (September – November)	<p>Move woodpiles and stacked timber away from the main dwelling.</p> <p>Keep grass short.</p> <p>Clean gutters and roof debris.</p> <p>Install firebreaks in accordance with this plan and the Firebreak Notice (November 30 to 31 May each and every year).</p> <p>Chemical spraying of firebreaks an low fuel zones – final applications and maintenance.</p>
Summer (November – May)	<p>Water lawns, trees & shrubs near the buildings to keep them green.</p> <p>Re-check firefighting equipment, screens, water supplies and that gutters remain clear.</p> <p>Maintain firebreaks in accordance with this plan and the firebreak notice by mechanical means or by use of chemical spraying.</p>
Long term precautions	<p>Ensure firebreaks are prepared in accordance with this Fire Management Plan, the latest Firebreak Notice and any Variation to Fire Order issued by council.</p> <p>Ensure that any planting of wind breaks or trees is in accordance with this Fire Management Plan and will not be detrimental to fire suppression requirements in years to come.</p> <p>Make sure that the buildings are safe – fit wire fly screens and shutters, fill gaps into roof/wall spaces, fit fire screens to evaporative air conditioners and have them operable to provide a water only supply.</p> <p>Give consideration to installing external building sprinkler systems and backup power and emergencies.</p> <p>Ensure the access to emergency water supply has the correct fittings, is unobstructed and the route trafficable.</p> <p>Get basic training in firefighting from your Local Bush Fire Brigade or even join your local Brigade.</p>

8.0 GLOSSARY

Acceptable Solution

A statement describing an acceptable means of complying with the requirements of corresponding performance criteria.

Appliance or Fire Appliance

A fire fighting appliance (vehicle) with structural, grass and bush fire fighting capabilities, with either a 2000 litres water capacity (2.4 appliance) or a 3000 litre water capacity (3.4 appliance) and four (4) wheel drive.

Asset Protection Zone (APZ)

Low fuel area immediately surrounding buildings. Minimum width 20 metres, increasing with slope. Maintained by the landowner.

Bushfire Attack Level (BAL) – an assessed rating of a site's risk to a bushfire, based on vegetation type, slope of the land and its proximity to buildings.

Building Construction Standard Buffer - An area 100 metres wide Including an Asset Protection Zone in which an increase in building construction standard in accordance with AS3959 will apply.

Bush

Under the Bush Fires Act 1954 the term bush is defined to include trees, bushes, plants, stubble, scrub and undergrowth of a kind whatsoever whether dead or alive and whether standing or not standing.

Bush Fire or Wildfire

A general term used to describe fire in vegetation that is not under control.

Bush Fire Hazard.

The flammability, arrangement and quantity of vegetation, dead or alive, that can be burnt in a bush fire. Development is to be avoided in extreme bush fire hazard designated areas.

Bush fire prone area - for the purposes of this fire management plan, a bush fire prone area is an area that has been declared as such by the relevant local government responsible for an area. Once an area is declared bush fire prone, then AS 3959 applies to new residential development in it.

Bush Fire Risk

The chance of a bush fire starting that will have harmful consequences on life and property. It is measured in terms of consequences and likelihood and arises from the interaction of hazards, communities and the environment.

Development Application

An application for approval to carry out a development under either a local planning scheme or regional planning scheme.

Dwelling setback – the horizontal distance between a wall of the dwelling at any point, and an adjacent lot boundary, measured at right angles (90 degrees) to the boundary.

DFES

The Department of Fire and Emergency Services of Western Australia previously FESA.

Emergency Access Way

Road not normally open but available to the public (using two wheel drive vehicles) for evacuation during a bush fire emergency.

Fire Break or Firebreak

Any natural or constructed discontinuity in a fuel bed used to segregate, stop and control the spread of a bush fire or to provide a fire line from which to suppress a bush fire. This is an area cleared to reduce the risk of bush fire damage.

FDI- Fire Danger Index

The chance of a fire starting, its rate of spread, its intensity and the difficulty of its suppression, according to various combinations of air temperature, relative humidity, wind speed and both the long and short-term drought effects.

Fire Protection

A generic term used to describe the range of services and systems used to mitigate the impact of fire on the community. It encompasses both fire prevention and emergency response.

Fire Management Plan

Ongoing, dynamic document that sets out the medium to long term mitigation strategies for fire hazards and risks in particular developments within local government areas.

Fire Services Access Route

Accessible by heavy four wheel drive fire fighting vehicles.

Fuel Reduction also Hazard Reduction

Removal and modification of bush fire fuel, or increase in building construction standards or a combination of the two.

Hazard Separation Zone (HSZ)

The fuel reduction area between an area bush fire hazard and the buildings (and associated Asset Protection Zones) of a development.

Performance Criteria.

Statement which specifies the outcomes required for the protection of life and property from bush fires.

Structural Fire

A fire in a building.

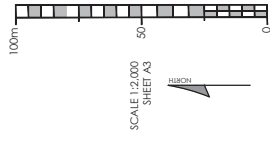
APPENDIX 6

FIGURE 6 SUBDIVISION AND BUILDING ENVELOPE PLAN FOR LOT 51 ELLIOT STREET

Forrington Heights
Waroona
Shire of Waroona

LEGEND

- SUBJECT LOT 51
- EXISTING CONTOURS (5m INTERNAL)
- EXISTING LOT BOUNDARY
- PROPOSED LOT BOUNDARY
- STRATEGIC FIREBREAK
- WATER PIPE (ELLIOT ST ONLY)
- EMERGENCY ACCESSWAY
(EASEMENT IN GROSS TO PROVIDE
EMERGENCY ACCESS BETWEEN ELLIOT
STREET AND FORRINGTON HEIGHTS)
- PROPOSED DRIVEWAY TO PROPOSED LOT 2
- PROPOSED SECOND ACCESS / EGRESS FOR
LOT 2
- PROPOSED BUILDING ENVELOPE
- EXISTING BUILDING ENVELOPE



A SUBDIVISION AND BUILD. 14/12/28 SJ SJ
 REV DESCRIPTION YTMDD DRAWN/APPVD
edge
 THE ANIMATED PROPERTY
 Edge Property Advisory
 11/11/2028 11:00 AM
 EP 151/24/07
 Prepared for: edge property advisory
 11/11/2028 11:00 AM
 Subject to local council approval.

