

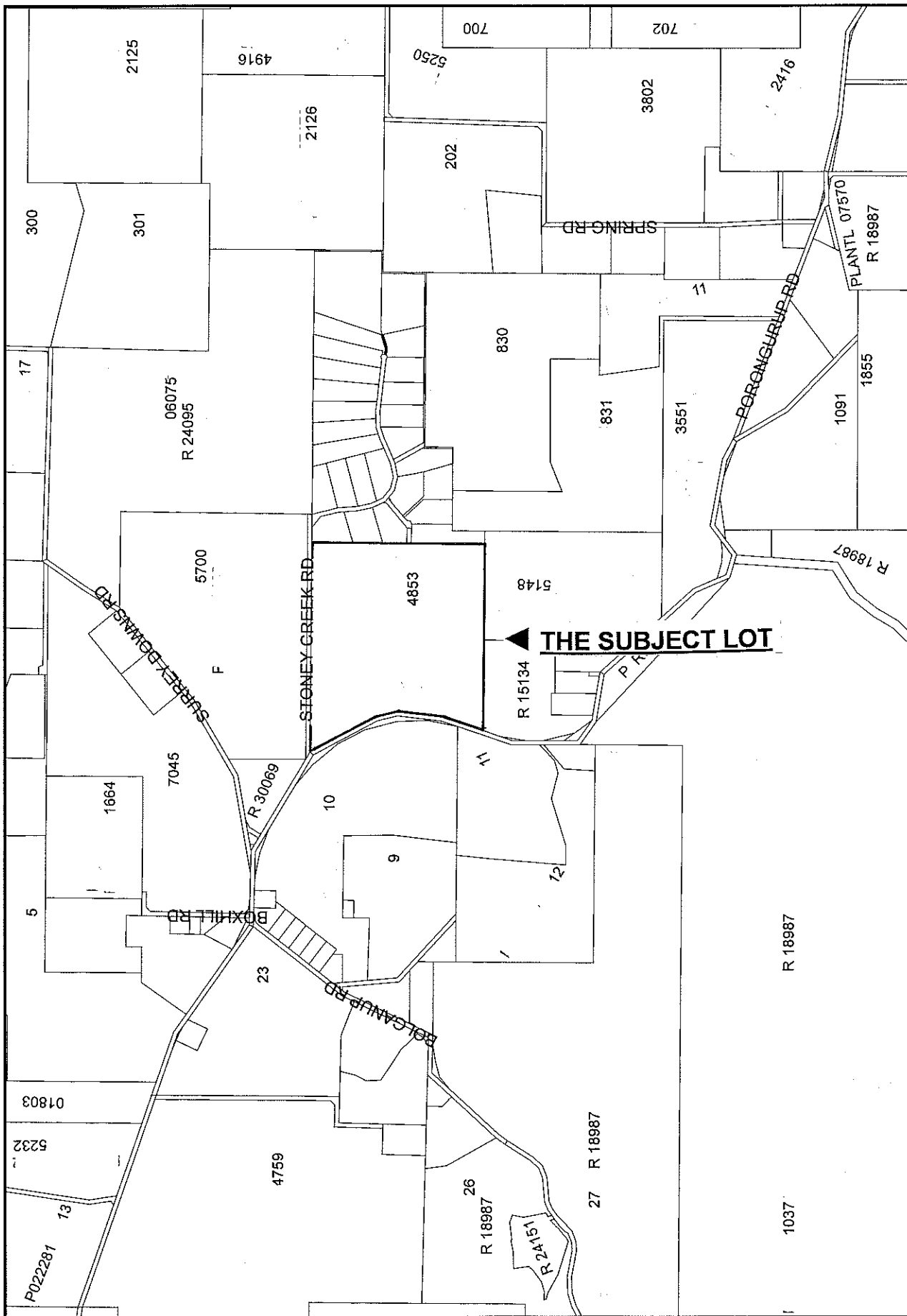
Council

Town Planning Scheme No. 3 - Amendment No. 58 -
Lot 4853 Porongurup Road, Porongurup

Location Plan
Subdivision Guide Plan
Amendment 58 (separate attachment)

Meeting Date: 3 July 2012

Number of Pages : 3

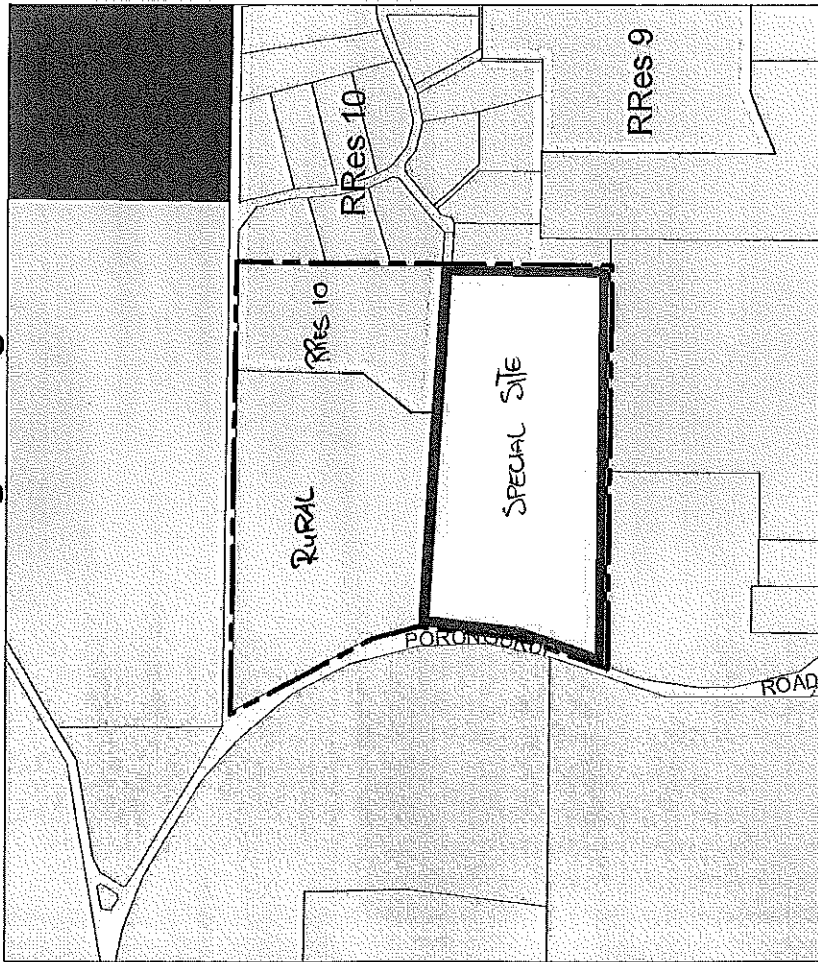


LOCATION PLAN

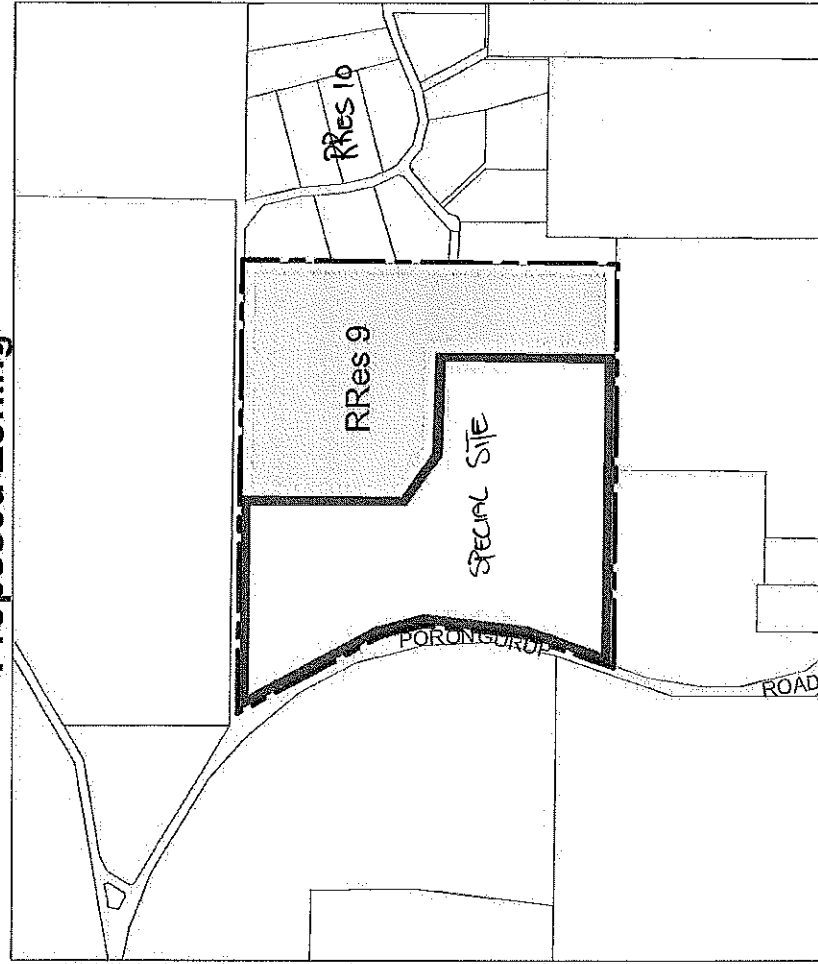


SHIRE OF PLANTAGENET TOWN PLANNING SCHEME 3 AMENDMENT NUMBER 58

Existing Zoning

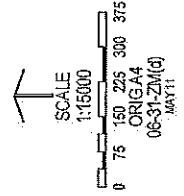


Proposed Zoning



- LOCAL SCHEME RESERVES**
- RECREATION
- ZONES**
- RURAL
 - RURAL RESIDENTIAL

- SPECIAL SITE**
Defined as follows:
- HC HOLIDAY CHALET
 - R RESTAURANT
 - W WINE DISPLAY/STORAGE /RETAIL/MANUFACTURE
 - C CLUB



AYTON BAESJOU
P L A N N I N G
11 Duke Street
Albany WA 6330
Ph 9842 2304 Fax 9842 8494

SUBDIVISION GUIDE PLAN
for Rural Residential Area 9
Pt. Lot 4853 Porongurup Road
Porongurup, Shire of Plantagenet



LEGEND

	Subject Land
	Existing Trees
	Existing Buildings
	Existing Lot Boundaries
	Proposed Lot Boundaries
	Existing Roads / Tracks
	Proposed Road
	Creek Line
	Existing Fire Management Track
	Proposed Fire Management Track
	Emergency Water Supply
	Existing Dams
	Unlocked Fire Gate Required
	Unlocked Fire Gate (to be provided if fence is erected)
	Extent of Development Envelope / Building Protection Zone
	Indicative House Site
	Development Exclusion Area / Ecological Corridor
	Bushland Linkage

NOTE

Structures, fences or firebreaks are not permitted within the Development Exclusion Area.

All Habitable Buildings in Rural Residential Area 9, to be constructed pursuant to AS 3959.

AYTON BAESJOU
PLANNING
 11 Duke Street
 Albany, WA 6330
 PH 9842 2304 Fax 9842 8494

ALL AREAS AND DIMENSIONS ARE SUBJECT TO SURVEY

06-31-SEP(1)
 ORIG 1/3
 SCALE 1:400
 0 20 40 60 80 100

SUBDIVISION GUIDE PLAN

SHIRE OF PLANTAGENET

TOWN PLANNING SCHEME No. 3

AMENDMENT No. 58

MINISTER FOR PLANNING

PROPOSAL TO AMEND A TOWN PLANNING SCHEME

LOCAL AUTHORITY:

SHIRE OF PLANTAGENET

DESCRIPTION OF LOCAL
PLANNING SCHEME:

TOWN PLANNING SCHEME No. 3

TYPE OF SCHEME:

DISTRICT SCHEME

SERIAL No. OF AMENDMENT:

AMENDMENT No. 58

PROPOSAL:

To rezone the north west portion of Lot 4853 Porongurup Road, Porongurup from Rural to Special Site 18 and to rezone the eastern portion of Lot 4853 from Rural, Special Site 18 and Rural Residential Area 10 to Rural Residential Area 9.

TOWN PLANNING SCHEME No. 3

AMENDMENT No. 58

CONTENTS

1. RESOLUTION
2. REPORT
3. EXECUTION

PLANNING AND DEVELOPMENT ACT 2005

**RESOLUTION DECIDING TO AMEND A
TOWN PLANNING SCHEME**

SHIRE OF PLANTAGENET

TOWN PLANNING SCHEME No. 3

DISTRICT SCHEME

AMENDMENT No. 58

RESOLVED that the Council, in pursuance of Section 75 of the Planning and Development Act 2005, amend the above local planning scheme by:

- 1. Rezoning the north west portion of Lot 4853 Porongurup Rd, Porongurup, from Rural to Special Site 18.*
- 2. Rezoning the eastern portion of Lot 4853 Porongurup Rd, Porongurup, from Rural, Special Site 18 and Rural Residential Area 10 to Rural Residential Area 9.*
- 3. In column (a) of Schedule 5 of the Scheme Text 'Rural Residential zones – Provisions Relating to Specified Areas' within the Locality, deleting 4853 from RRes 10 and inserting 4853 under RRes9.*
- 4. Amending the Scheme Maps accordingly*

Dated this _____ day of _____

CHIEF EXECUTIVE OFFICER

SHIRE OF PLANTAGENET

TOWN PLANNING SCHEME NO. 3

AMENDMENT NO. 58

PLANNING REPORT

Contents

1. INTRODUCTION	1
2. BACKGROUND	2
2.1 LOCATION, AREA, LAND USE & ZONING	2
2.2 SURROUNDING LANDUSE	5
3. PLANNING CONTEXT	5
3.1 REGIONAL PLANNING	6
3.2 LOCAL PLANNING CONTEXT	7
4. SITE ASSESSMENT AND CAPABILITY	11
4.1 PHYSICAL FACTORS	11
4.2 GEOTECHNICAL FACTORS	12
5. PLANNING CONSIDERATION.....	14
6. SERVICES & INFRASTRUCTURE	17
6.1 ROADS AND EMERGENCY ACCESS	18
6.2 FIRE SAFETY	18
7. AMENDMENT PROPOSAL.....	19
SUBDIVISION GUIDE PLAN.....	20
8. CONCLUSION	22

APPENDIX A - Extracts from the 2006 & 2007 Environmental Assessments - Landform Research

APPENDIX B - Flora & Vegetation Assessment - Landform Research - May 2012

APPENDIX C - Fire Management - Plan FirePlan WA - March 2012

1. INTRODUCTION

This Amendment seeks to rationalise the zoning of Lot 4853 Porongurup Road, Porongurup and update the subdivision provisions applicable to future Rural Residential development. Contemporary Scheme provisions relating to fire safety, wastewater management and amenity and ecological objectives will replace those introduced in 2004. It is proposed to reduce the number of zonings across the subject land from three down to two, and to adjust the boundaries of the Special Site and Rural Residential zone to more closely reflect existing land uses and site characteristics. It is proposed to rezone the north-west portion of Lot 4853 from Rural to Special Site 18 and Rural Residential.

Through ground truthing and detailed site assessment, this Amendment seeks to address the anomalies and discrepancies between the zoning boundaries, the indicative precinct boundaries and the actual and proposed land uses. This proposal is based on the physical characteristic and particular attributes of the subject land. It will allow for land uses and expansion of activities on the site which are both compatible and integrated with existing and anticipated developments on adjoining and nearby properties.

It is proposed to retain and protect remnant vegetation (regrowth) by locating the development within the existing cleared areas. The rezoning will augment the existing vineyard and approved cellar sales/restaurant on Lot 4853 and allow the balance of the land to be developed in an integrated and coordinated manner.

The minor extension to the Special Site and rationalisation of the zoning on Lot 4853 accords with relevant State and Regional Strategies and Policies. This proposal satisfies the objectives and recommendations contained in the Porongurup Local Rural Strategy (PRS) - Town Planning Scheme Policy No. 11 and the Shire of Plantagenet Planning Vision - Town Planning Scheme Policy No. 18.

More specifically, the rezoning is consistent with the Overall Aim and Key elements of the endorsed G1 Precinct Structure Plan.

This Amendment and the associated Subdivision Guide Plan have been prepared in response to the site characteristics and are based on capability, viability and expansion of both viticulture and small scale tourism, vegetation protection and fire safety objectives.

2. BACKGROUND

2.1 Location, Area, Land Use & Zoning

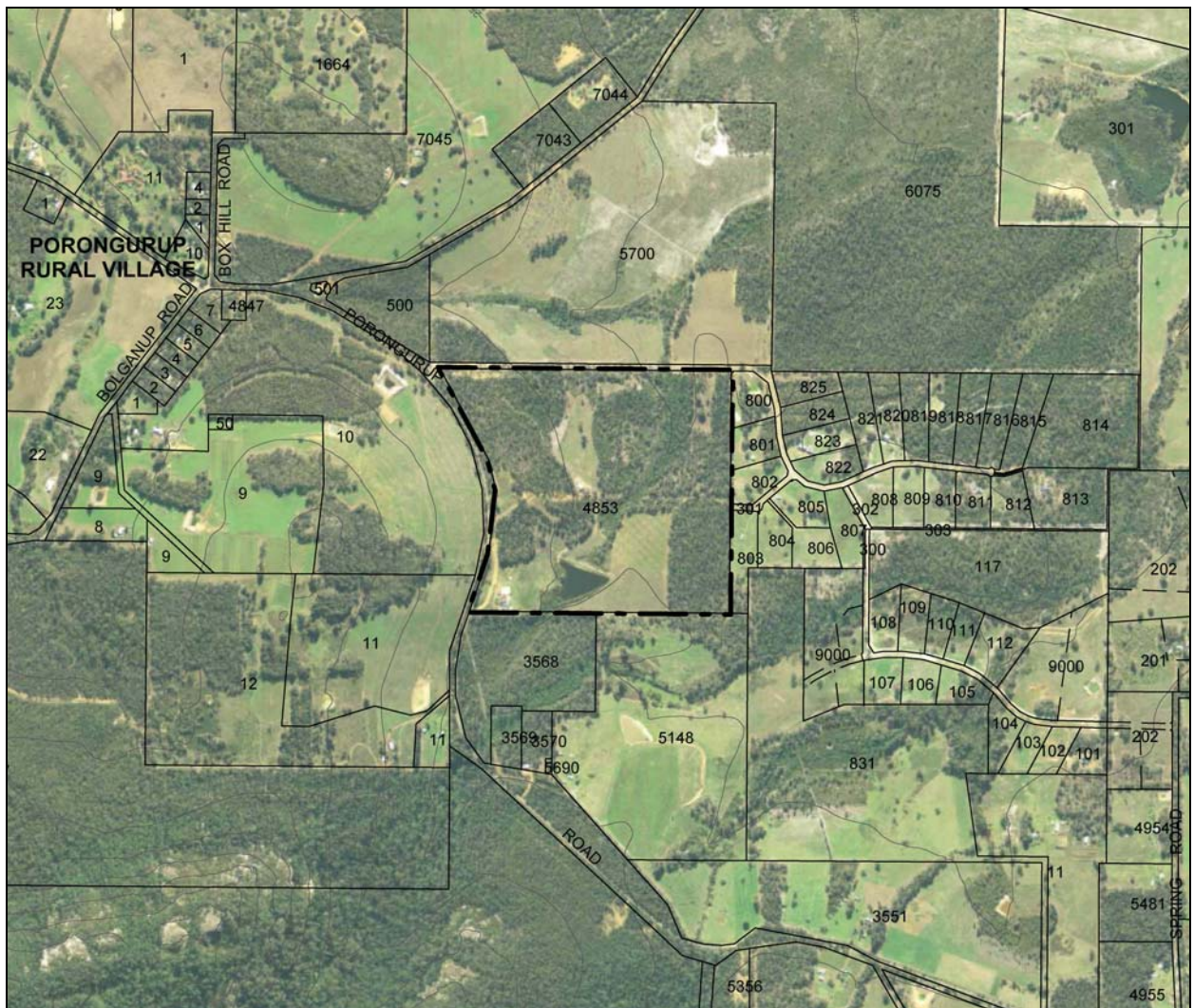
The subject land is located on the northern side of the Porongurup Range at the intersection of the Porongurup Road and Stoney Creek Road. It is less than 1km from the Porongurup Village.



Lot 4853 is 66.588ha in area.

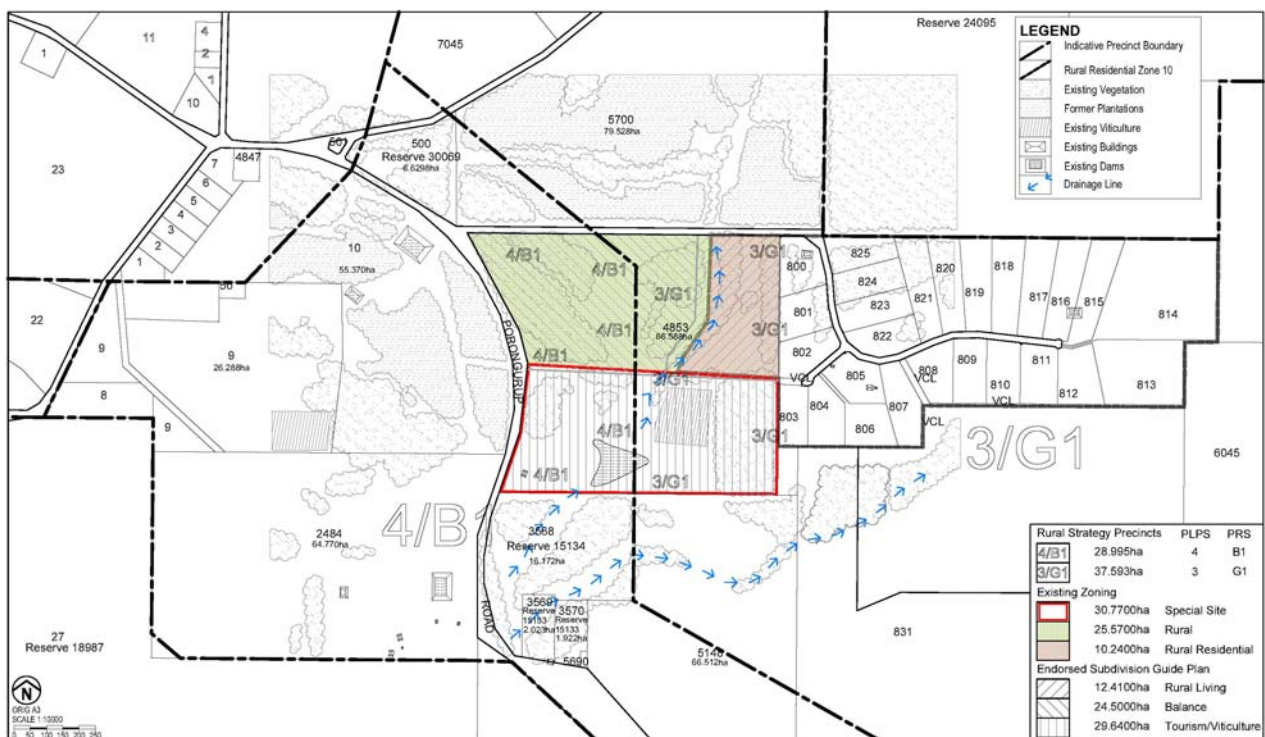
The southern portion of Lot 4853 contains approximately 3.5ha of established vines associated with Ironwood Estates Wines. Planting of an additional 3ha of vines is proposed south of the existing vineyard. Lot 4853 is also the subject of an approved Restaurant/Cellar Sales and Managers Residence (Application No. 59/06 and subsequent Resolution 167/07). The Residence was completed in 2008. The large dam adjacent to the southern boundary is used for aquaculture, irrigation and emergency water supply.

The northern portion of the site contains cleared areas which have been pastured and are used intermittently for grazing. The site contains riparian vegetation along Stoney Creek line and areas of remnant vegetation.



Lot 4853 has multiple zones under the Shire of Plantagenet Planning Scheme No. 3 (TPS3). The southern moiety is zoned Special Site 18. The Special Provisions allow for Managers' Residence, Restaurant, Wine Tasting, Aquaculture, Holiday Chalets (maximum 12) and Viticulture.

The north eastern portion is zoned Rural Residential Area 10 (formerly Area 5) under TPS3. The zoned area is approximately 10ha. The endorsed Subdivision Guide Plan (SGP) shows an 11.4ha lot covering this area and extending into portion of the adjoining rural zone. The SGP nominates a central core of 'viticulture' bounded to the east and west by 'Vegetation Protection Area'.



The balance of the subject land in the north western corner is zoned Rural. This portion of the site is approximately 25.5ha. The original SGP, as initiated by Council and subsequently endorsed for final approval in 2002, provided for the creation of nine (9) Rural Residential lots in this area. That plan, although not approved by the Commission/Minister, actually proposed a total of thirty three (33) Rural Residential Lots ranging from 1 to 3ha clustered within existing cleared areas, including the remaining Rural zoned portion of the subject land. The original SGP had also proposed the creation of 32.4ha of POS/Parks and Recreation Reserve on former lot 6052. Importantly, following its visit to the site in 2003, the Statutory Planning Committee acknowledged the case in support of rezoning the north western corner of the site and the "merit in including 'Lots 2-10' in the G1 Precinct". This Amendment seeks such adjustment.

2.2 Surrounding Landuse

Lot 6052 to the east of the subject land is also zoned Rural Residential under TPS3 (now Area 10 through Amendment 41, gazetted July 2007 but formerly Area 5 created through Amendment 29, gazetted January 2004). The recent subdivision served to create twenty five (25) lots ranging in size from 2 to 12ha.

Adjoining freehold land to the north, south and west is zoned Rural. Former bluegum plantations on the adjoining land to the north and west have recently been harvested; the majority is being re-pastured. Crown Land in the vicinity, including the Porongurup National Park and various small reserves are local authority reservations for Recreation under TPS3.

Through Scheme Amendment 51, gazetted in February 2009, Lot 830 and portion of Lot 831 (former Lot 2150) and Lot 6045 Spring Road to the south east were rezoned from Rural to Rural Residential Area 9 to enable the creation of lots ranging from 1 to 20ha.

3. PLANNING CONTEXT

The key documents which provide the planning context and guidelines for the subject land are the Shire of Plantagenet Town Planning Scheme No. 3, the Shire of Plantagenet Town Planning Scheme No. 3, the Porongurup Rural Strategy (PRS), TPS3 Policy No 11 the Porongurup Rural Strategy (PRS), TPS3 Policy No 18 (Planning Vision) and the 2011 Plantagenet Local Planning Strategy (PLPS)

Relevant State Strategic and Policy documents include:

- SPP 1 State Planning Framework Policy [Variation No 2]
- SPP 2 Environment and Natural Resources Policy
- SPP 2.5 Agricultural and Rural Land Use Planning
- DC 1.1 Subdivision of Land – General Principles
- DC 3.4 Subdivision of Rural Land
- Planning Guidelines: Planning for Bushfire Protection.

3.1 Regional Planning

In the endorsed Regional Rural Strategy, which forms part of the Albany Regional Planning Study, the Porongurup area is identified as the K-K5 Planning Unit with preferred landuses being identified as grazing, tourism/special rural development within the confines of Mt Barker - Porongurup Road, Millinup and Woodlands Roads; and conservation. Planning and management guidelines for the Planning Unit recommend tourism and special rural development to be part of a Local Rural Strategy

The Lower Great Southern Strategy (LGSS) June 2007 identifies relevant planning issues for rural settlements and infrastructure provision in regional and rural areas. Part 3.5 of the LGSS deals with protection of priority agricultural land, intensive agriculture, farm forestry and salinity. The LGSS also recognises that rural residential development should be consolidated in local planning strategies and located close to existing settlements, rather than being randomly dispersed throughout rural areas. Table 4 – Settlement Hierarchy identifies Porongurup as one of four Rural Villages within the Shire of Plantagenet and part 3.7 addresses sustainable settlements and community development.

Objectives and Actions set out in the LGSS relevant to this proposal include:

- Ensure that the identified settlements develop in a sustainable manner;
- Identifying sufficient land in local planning strategies and preparation of conceptual structure plans;
- Promoting water conservation strategies; and
- Determine the capacity of current and potential power supply options and identify power supply requirements.

The LGSS makes reference to both the State Planning Strategy and the WA State Sustainability Strategy; Hope for the Future. In particular the regionalisation and decentralisation of urban and industrial development as well as the key goals of generating wealth, conserving and enhancing the environment and building safe and vibrant communities for this and subsequent generations.

This proposal accords with the LGSS and satisfies the objectives and criteria set out in SPP 2.5 and DC 3.4. It is identified for tourism, viticulture and rural residential development in an endorsed Strategy and has been appropriately planned through the preparation of a Master Plan and Precinct Structure Plan.

3.2 Local Planning Context

Lot 4853 is located within both the B1 and G1 Planning Precincts, as set out in the 1996 endorsed Porongurup Local Rural Strategy (PLRS). These Precincts correspond with Planning Precincts 4 and 3 respectively as set out in Appendix 4 - Porongurup Rural Village and Environs of the TPS Policy No. 18 (Planning Vision) and the November 2011 Council adopted Plantagenet Local Planning Strategy (PLPS).

The Western portion of the subject land is in the B1 Precinct of the PRS, and Precinct 4 of the Planning Vision and draft PLPS.

The eastern portion of lot 4853 is located within the G1 Planning Precinct, as set out in the PRS and Precinct 3 in the Planning Vision. Both Strategies recognise that the Precincts are suitable for development.

The objectives for the B1 Precinct include:

- Protection the landscape qualities and environment of the park and abutting areas and the environs of the road system;
- Provide for continued development of viticulture and associated small scale tourism;
- Retention of remnant vegetation and revegetation of creeklines;
- Minimise impact of development adjacent to main tourist routes; and
- Minimise fire risk within the precinct.

The Rural Strategy recognises that “the protection of existing remnant vegetation is particularly important... (and) ...the extension of existing viticulture or other small scale tourist accommodation in association with vineyards is considered appropriate.” (p 64)

Relevant recommendations contained within the PLRS for the B1 Precinct, and Future Proposals as set out in 10.5.2 of the Planning Vision are as follows:

- Subject to retention of existing remnant vegetation, extensions of existing viticulture and other appropriate agricultural uses, together with small scale tourist accommodation in association with vineyards is supported.
- Further breakdown of lot sizes is not supported unless it can be demonstrated that it:
 - will support the viticulture and tourist industry;
 - will not reduce the viability of lot sizes for viticulture purposes;
 - will not impact detrimentally on the Park;
 - provides an opportunity for revegetation of creeklines & other sensitive areas;
 - takes account of likely visual impact; and
 - incorporates fire control measures.

The eastern section of lot 4853 is located within the G1 Planning Precinct, as set out in the PLRS. This is one of only two precincts in Porongurup which have specifically been selected where "...with appropriate detailed assessment and planning, some form of rural residential subdivision can be supported". The PLRS provides for limited nodal development and recognised the area as being suitable for rural residential development for the following reasons:

- it is well screened for tourist routes and the main lookouts within the Park;
- rezoning will enable appropriate controls to be incorporated into Council's Town Planning Scheme to retain existing vegetation and ensure the drainage lines are fenced and vegetated where appropriate;
- the Precinct is located close to existing community facilities;
- the attractive undulating landscape and mixture of cleared areas and remnant revegetation will provide for a mix of rural retreat and hobby farm development which can be sensitively integrated with the landscape;

- the Precinct does not support or is not located adjacent to Precincts which have well established broadacre farming or land with a high capability for viticulture. A large recreation reserve also provides a buffer on the northern boundary of the Precinct. Consequently it is considered that potential conflict between rural-residential development and agricultural use can be better managed in this Precinct when compared with other Precincts;
- a number of landowners in the Precinct have indicated an interest in subdividing their property for rural residential development.

The objective for the G1 Precinct is:

“To consider proposals to rezone land for rural residential purposes on suitable landforms within the Precincts, subject to adequate protection of vegetation, creek lines, landscape qualities, the environment generally provision for appropriate fire protection and appropriate buffers to agricultural and horticultural uses”.

The current Planning Vision recognises that a Precinct Structure Plan has previously been prepared for the area which is now identified as Precinct 3. The recommendations contained within the PLRS for the G1 Precinct, are generally consistent with the Future Proposals as set out in 10.4.2 of the Planning Vision. Both strategies identify similar principles and management issues in respect to land that is to be used for Rural Residential development. Key elements relevant to this proposal include:

- Provision for a range of lot sizes with Rural Residential development to be located on poorer, cleared agricultural land to minimise bush fire threat and retain good agricultural land for productive use. The land to be used for residential lifestyle in a rural setting, including rural retreats and small non-commercial hobby farms.
- Rural smallholdings to be located on good agricultural land with lot sizes capable of supporting productive agricultural uses. Productive use of cleared land with good soils is encouraged.
- Development to be appropriately located, designed and landscaped to minimise visual impact from Porongurup Road and the Porongurup Range.

- Drainage lines to be protected and revegetated where appropriate.
- Exclude stock from remnant vegetation and drainage lines.
- Stormwater to be contained on site and disposed of via compensating basins/detention basins prior to entry into drainage lines. Stormwater management is to be consistent with water sensitive design principles.
- View corridors from Porongurup Road to the Stirling Range to be protected.
- Bushfire Management Plans to be provided.
- Maximise the use of existing drainage lines, revegetation areas and areas of remnant vegetation to create flora and fauna corridors.

The planning strategies and this proposal advocate a range of lot sizes being provided in response to site conditions. Development is concentrated in previously cleared area and in order to minimise loss of vegetation and encourage more consolidated use of existing cleared land.

The subject land straddles both precincts, however the overarching objectives of landscape protection, sustainability, efficiency and responsive design apply to all development and will be achieved through this Plan. Since 1996 the subject land has been ear marked for a combination of rural residential/rural smallholding, possible viticulture expansion and tourist development.

This Amendment is consistent with both local strategic planning documents. It will assist in achieving the objectives and addresses the criteria set out in the endorsed Planning Vision.

4. SITE ASSESSMENT AND CAPABILITY

Further to the environmental assessment carried out in 2000 for the preparation of the G1 Precinct Structure Plan and Amendment 29, more detailed soil, vegetation and land capability assessments were undertaken by Landform Research in August 2006, January 2007 and December 2010.

The 2007 Environmental Assessment report provides a number of management recommendations to assist in the planning and design process, particularly in regard to effluent disposal and vegetation protection. It concludes that overall there is not anticipated to be any significant negative environmental impact as a result of the proposed development of the site.

Relevant extracts from the 2006 and 2007 Reports together with copies of the maps showing soils types, capability and the vegetation communities and condition are reproduced in Appendix A.

The combined reports address the physical environment, hydrology, biological environment and biodiversity (including flora assessment), geotechnical factors, nutrient management, weeds, salinity and soils. The reports contain specific recommendations in regard to vegetation protection, creekline protection, fire protection, siting of effluent disposal systems and stormwater. The various documents have been used to inform this proposal. Relevant aspects of the site assessment and physical characteristics are discussed below.

4.1 Physical Factors

The site lies on the northern footslopes of the Porongurup Range at an elevation of 270m ahd in the south west down to 220m in the drainage line on the northern boundary.

Drainage lines have dissected the footslopes which are developed on weathered granite basement. During weathering a relatively thick sequence of sandy clay subsoils has formed and this remains intact under the ridges. The area has experienced laterite formation in the Late Tertiary and this remains as gravelly and duricrust soils on the western ridge. Overlaying the subsoils are coarse quartz sands, with a thin variable layer of finer sand filling the valleys.

The drainage lines which pass through or originate in the precinct are small headwaters of Stoney Creek which is itself a tributary of the Kalgan River which drains to Oyster Harbour.

4.2 Geotechnical Factors

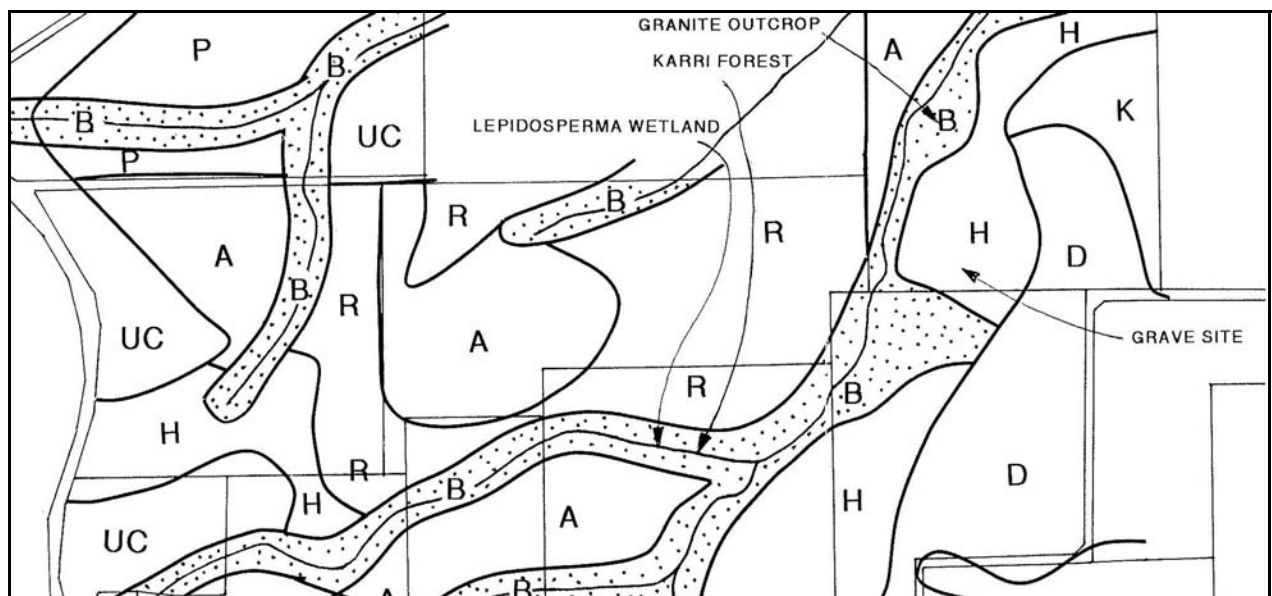
Soils of the site are predominantly sand over clay duplex in the lower elevations with the clay subsoils forming loams on the mid slopes and gravel and duricrust on the upper slopes to the west. The lower slopes are sandy duplex soils with the gravels confined to the remnant vegetation to the west. The key soil types are listed in Table 1 and depicted in the Soils Map – Figure 1.

Table 1 Soil Types

SOIL TYPE	DESCRIPTION
Brown Loam	Dark brown loam to brown loam becoming lighter below 300 mm, increasing clay content with depth. Formed from weathering of granite basement. Some gravel may be present in upper soil horizons on the upper slopes. Granite basement outcrop and associated shallow soils are common in some locations. Present to the south of the chalet site.
Coarse Sand	Coarse white sand made from angular quartz grains shed from weathering granite and overlaying subsoils similar to the brown loams on the valley floors. Generally a colluvial or alluvial sand sheeting other soil types. Underlies much of the chalet site. Whilst this soil unit can have some damp soils in winter these have been avoided for the chalet site.
Fine Sand Duplex	Fine sand that is generally white and leached in the wetter areas but yellow in deeper sands. The sand reaches over 5 metres deep in the north west. Reworked sand of aeolian origin.
Duricrust and Gravel	Generally upper slope or ridges. Brown gravel over yellow brown laterite duricrust at shallow depth. Duricrust is 200 – 400 mm thick over light brown loam subsoils. Present in the south east.
Gravelly Loam	Mid to upper slope soils developed from the weathering of granite but with a significant proportion of yellow brown gravel in the upper 200 to 500 mm soil. Located to the west of the site.

Source Landform Research 2007

Figure 1 – Soils Map



Source Landform Research 2007

A summary of the issues relevant to the main land units is shown below.

LAND TYPE	ISSUES AND DESIRABLE LAND USES
A Cleared Sandy Soils	<ul style="list-style-type: none"> • Cleared sandy soils. • Generally well to moderately well drained. • Generally good capability for effluent disposal. Potential uses <ul style="list-style-type: none"> • Conservation and lifestyle blocks. • Rural living in clusters down to 2 ha. Management <ul style="list-style-type: none"> • Clearing restrictions on trees and remnant vegetation except for building envelopes and fire management. • Stock permitted to Ag WA guidelines or a nutrient management plan implemented for additional stock. • Nutrient & soil management plan recommended for horses and stables.
B Creekline Buffers	<ul style="list-style-type: none"> • Existing remnant vegetation in good condition along creeklines and seepage areas. Sandy or loam soils. Potential uses <ul style="list-style-type: none"> • Conservation and foreshore management. Management <ul style="list-style-type: none"> • Retain remnant vegetation. Monitor and manage for weeds. • Fence and replant any degraded areas with local species as funds become available.
R Remnant Vegetation	<ul style="list-style-type: none"> • Remnant vegetation on Gravelly, duricrust and sandy soils. • Soils generally low capability for horticulture. Potential uses <ul style="list-style-type: none"> • Conservation and lifestyle blocks. Management <ul style="list-style-type: none"> • Clearing restricted to building envelopes and fire management. No stock permitted. • Linkages should be maintained to other vegetation.
H Horticulture	<ul style="list-style-type: none"> • Good loam and gravelly loam soils. Shallow in places with seepage on some slopes. Potential uses <ul style="list-style-type: none"> • Larger lots for horticulture and agriculture. Management <ul style="list-style-type: none"> • Retain remnant vegetation. • Soil and stock management to consider the sloping nature of the soils. Avoid seepage areas.
UC Upper Catchment	<ul style="list-style-type: none"> • Loam and Gravelly soils with high impact from Mount Barker – Porongurup Road. • Source of elevated salinity through recharge as a result of clearing. Potential uses <ul style="list-style-type: none"> • Rural Living and agriculture uses on larger lots. Management <ul style="list-style-type: none"> Retain all remnant vegetation apart from building envelopes and fire management. Land not used for agriculture purposes should be planted with deep rooted species to reduce recharge.

There is no record of Acid Sulfate soils or contaminated sites for the subject property. The 2007 site assessment found no evidence of Acid Sulfate conditions and proffers that there was no risk of disturbing acid sulphate soils during sand excavations and that no further consideration of Acid Sulfate was necessary.

The reports contain specific recommendations in regard to vegetation protection, creekline protection, fire protection, siting of effluent disposal systems and stormwater. These have been incorporated into the current development proposal and are reflected in the Special Provisions and revised Subdivision Guide Plan. Importantly, the geotechnical and capability assessments confirm no anticipated significant negative environmental impact as a result of the proposal.

5. PLANNING CONSIDERATION

The PRS and the Plantagenet Local Planning Strategy both recognise the importance of protecting existing remnant vegetation and consider the extension of existing viticulture and small scale tourist accommodation in association with vineyards to be appropriate in Precinct B1/4 respectively. This proposal will achieve these outcomes.

Following the preparation and submission of a Conceptual Master Plan in 2009, a Scheme Amendment Request (SAR) was submitted to the Shire of Plantagenet in March 2010. The SAR was referred to selected agencies then advertised for public comment. The SAR was reconsidered by the Council at its meeting held 27 July 2010. The Council resolved that it was prepared to receive a formal amendment, subject to various matters raised in the submissions being addressed, including policy issues fire safety, vegetation protection, size and number of lots and sustainability. Part 3 of the resolution set out that support was subject to not more than in the order of eight rural residential lots being provided to prevent significant loss of vegetation and the proposed tourist accommodation being located eastwards to again minimise the need to clear remnant vegetation.

A Flora and Vegetation Assessment was subsequently undertaken (Refer Appendix B) to complement the 2007 land capability assessment. The 2012 Flora Assessment responds to the issues raised by DEC in its submission on the SAR and addresses vegetation impact and protection, as identified in parts 2 and 3 of Council's resolution. As detailed in Part 2.0 of the recent Flora Assessment, a field survey and search was conducted in December 2010 focussing on those areas of the site that may be impacted by development, in particular the allocation of Building Envelopes and associated low-fuel areas. There was extensive liaison between the Environmental consultant, the Fire consultant and the Town Planning consultant in the preparation of the plans and reports. To ensure integration, consistency and balance between the sometimes conflicting objective of vegetation protection and fire safety.

The preliminary Fire Strategy was revised and a comprehensive Fire Management Plan has been prepared for the subject land (Refer Appendix C). Those reports have been used to inform this proposal and the SGP has been revised to take account of the recommendations contained in both the vegetation Assessment and the Fire Management Pan.

The 2009 conceptual Master Plan nominated 14 Rural Living lots ranging from 1 to 7ha. That plan was revised by reducing the lot yield and replacing the two culs-de-sac with a loop road connecting through to the adjoining Rural Residential subdivision to the east. While facilitating improved fire safety by providing additional alternative emergency egress, this design necessitates a new creek crossing and slightly longer total road length.

Various plans and lot layouts have been considered over the course of this project and the indicative 12 lots shown on the current SGP represent an appropriate balance consolidation, efficiency and environment impact.

As depicted on Figure 2 of the Flora and Vegetation Assessment, the Building Envelopes and building Protection Zones (low-fuel areas) area concentrated in existing cleared areas. These are mostly categorised as 'Completely Degraded' or 'Degraded'. The Hazard Separation Zones are predominantly located in 'Completely Degraded' or 'Degraded' areas, with some encroachment into 'Good – Very good' vegetation. The Development Envelopes, BPZ and HSZ do not extend into the Creekline or areas categorised as 'Excellent'. In any case, it should be noted that trees are not required to be cleared from the HSZ. Fire safety levels and fuel loads in accordance with the relevant standards and guidelines can be achieved through control and management of understorey and leaf litter.

The clustering of the Building Envelopes and the overlapping of the Hazard Separation zones, as provided for in the current SGP means that the total development footprint for the 12 proposed lots is not significantly different to that of 7-9 lots.

This rezoning proposal represents an opportunity to develop a high quality tourist accommodation co-located with vineyard, together with a consolidated enclave of Rural Living lots located within previously cleared areas. By clustering the buildings and services, the development footprint is minimised. This enables efficient use of resources and services. The vegetated buffer adjacent to Porongurup Road and the creekline will remain undeveloped; these areas will be managed to protect remnant and riparian vegetation, landscape values and visual amenity.

Provisions and controls will be introduced to reinforce the protection of existing vegetation, which serves as an attractive landscape backdrop along this important tourist route. Weed and fire management of the bushland will remain the responsibility of the landowners (and not the Local Authority) thereby providing considerable community benefit, both social and ecological.

Given its proximity to the Porongurup Rural village, the National Park, existing cellar sales outlets, other tourist accommodation and community facilities it is desirable to capitalise on the strategic location and the natural attributes of the site.

The proposal represents orderly and proper planning and sets a desirable precedent for encouraging viticulture expansion and small scale tourist development in Porongurup.

6. SERVICES & INFRASTRUCTURE

The proposal takes advantage of available infrastructure and services.

The site is serviced by power, telecommunications and sealed roads. Underground power and telecommunications can be extended to service the proposed development.

Scheme water is not available and cannot be viably extended to service this site. A potable water supply will be provided from roof runoff as annual average rainfall in the area (750mm pa) is sufficient to secure a supply for domestic purposes. As with other surrounding rural residential subdivision, installation of rainwater storage tanks will be a requirement of development, implemented through Special Provisions under Town Planning Scheme No.3. Adequate potable and emergency water supplies will be provided to the proposed Chalets and other commercial operations as a condition of development approval. It is intended to provide a communal emergency water supply, with appropriate outlet and fittings. This will be in addition to the existing dam on Lot 4853 which has previously been used for fire fighting water supply.

Waste water treatment will be by way of on site effluent disposal. The land capability assessments confirm that soil types are satisfactory for this purpose. Notwithstanding the site's suitability for conventional effluent disposal systems (septic tanks), as set out in the Shire of Plantagenet Local Planning Strategy 'The Council's preference for all new Rural Residential zones will be for the provision of ATU systems in preference to conventional on site disposal systems.' A minimum setback of 30m from the streamline to effluent disposal areas is achievable for all proposed lots shown on the SGP, in accordance with Clause 3.1.5.5.3 (PLPS November 2011).

Water management is straightforward in this case, given the proposed lot sizes and relatively well drained nature of the development sites. Stormwater runoff from the road system will be managed via open swale drains and stormwater will be disposed of onsite wherever possible in accordance with water sensitive design principles. On-site disposal is readily achievable given the low gradient of the site and the permeability and infiltration characteristics of the soil. Full detailed design documentation and an appropriate Management Plan will be provided at the subdivision stage, prior to road construction and clearance of relevant subdivision conditions.

6.1 Roads and Emergency Access

Emergency access and egress will be coordinated within the subject land and will be integrated with adjacent developments. Fire safety is to be addressed through the provision of emergency water supply, use of Hazard separation zones and Strategic Fire Breaks/emergency access. The road network is permeable and allows for emergency vehicle access as well as emergency egress. The design includes linkages with the existing and proposed Strategic Fire Breaks in the adjoining developments, and provides for alternative egress for all lots. A preliminary Fire Management Plan has been prepared and relevant recommendations are reflected in this Master Plan.

Services, access roads and emergency egress within this site will integrate with and complement the adjoining developments, in accordance with the endorsed Precinct Structure Plan.

6.2 Fire Safety

A preliminary Fire Management Strategy was prepared for the subject land in 2008. The fire consultant has since revised and updated the document based on the current development concept, scientific advice and recommendations from the Environmental Consultant and in accord with the latest Guidelines for Planning for Bushfire Safety. The 2012 Fire Management Plan includes a fire hazard assessment and addresses fire safety elements, performance criteria and acceptable solutions, as per the Guidelines. The Fire Management Plan sets out Property Owner, Developer and Shire Responsibilities in Part 7 and contains a completed compliance checklist signed by the Fire Consultant. (Refer Appendix C).

7. AMENDMENT PROPOSAL

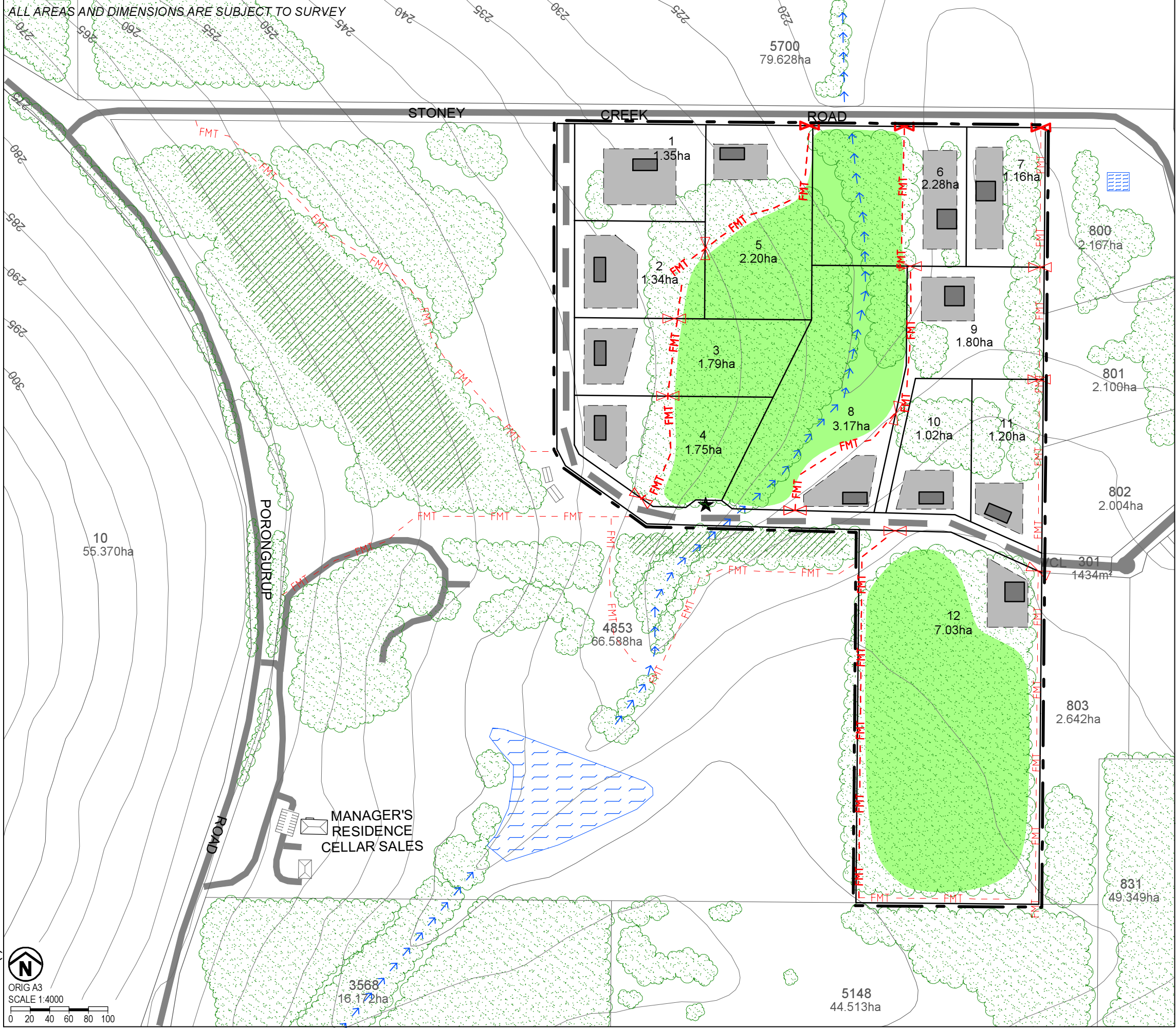
This Amendment proposes to rationalise the zoning of Lot 4853 to more closely align with the existing land uses and the Precinct boundaries set out in the Rural Strategy and Planning Vision/draft Local Planning Strategy. It allows for the creation of an enclave of Rural Residential lots, predominantly in the north east and a Tourist Precinct (Special Site) on the western portion of the Lot, incorporating the existing vineyard and cellar sales outlet for Ironwood Estate.

The Rural Residential zoning is to be extended and revised. It is proposed to remove Lot 4853 from Rural Residential Area 10 and include it within Rural Residential Area 9. Rural Residential Area 10 predominantly comprises former Lot 6025 has been subdivided. The undeveloped western portion of Rural Residential Area 10 is within Lot 4852. The Objectives and Special Provisions applicable within Area 9 (created in 2009 through Amendment 51) are contemporary and more relevant than those in Area 10 (formerly Area 5, created in 2004 through Amendment 29, but re-numbered through Amendment 41 to TPS3). In particular the requirements relating to fire safety, effluent disposal (through use of ATUs), water supply, creekline protection, implementation of Development Exclusion Areas and foreshore management afford greater controls and are a better fit.

A revised Subdivision Guide Plan has been prepared for the subject land for the new Rural Residential Area 9.

The boundary of the Special Site zone is also proposed to be rationalised; it will be extended northward to incorporate the balance of Lot 4853 adjoining Porongurup and Stoney Creek Roads, portion of which is currently zoned Rural. This area is within Planning Precincts B1 and 4 respectively of the PRS and Planning Vision. The undeveloped bushland east of the existing vineyard will be deleted from the Special Site. This portion of Lot 4853 is in Planning Precinct G1 of the PRS and Precinct 3 of the Planning Vision, in which Rural Residential development can be considered.

SUBDIVISION GUIDE PLAN
for Rural Residential Area 9
 Pt. Lot 4853 Porongurup Road
 Porongurup, Shire of Plantagenet



LEGEND

- Subject Land
- Existing Trees
- Existing Buildings
- Existing Lot Boundaries
- Proposed Lot Boundaries
- Existing Roads / Tracks
- Proposed Road
- Creek Line
- Existing Fire Management Track
- Proposed Fire Management Track
- Emergency Water Supply
- Existing Dams
- Unlocked Fire Gate Required
- Unlocked Fire Gate (to be provided if fence is erected)
- Extent of Development Envelope / Building Protection Zone
- Indicative House Site
- Development Exclusion Area / Ecological Corridor
- Bushland Linkage

NOTE

Structures, fences or firebreaks are not permitted within the Development Exclusion Area.

All Habitable Buildings in Rural Residential Area 9, to be constructed pursuant to AS 3959.

06-31-SGP(f)
 ORIG A3
 SCALE 1:4000

0 20 40 60 80 100

The Rural Residential lots will be concentrated in the existing cleared areas, with larger lots encompassing the creekline. This area will serve as a transition area between the Tourist Precinct and the adjoining Rural Residential development to the east. The Tourist Precinct incorporates the existing vineyard Cellar Sales and Aquaculture enterprises within the extended and modified Special Site. Notwithstanding that the existing vineyard is located within the nominated rural residential area identified in both strategies (PRS G1 and PLPS Precinct 3) this intensive agricultural/horticultural land use is an integral element of the tourism operation; for this reason it is to remain within the Tourism Precinct/Special Site.

There is no significant increase in the area of Special Site 18 and no change to the total number of Chalets permissible Lot 4853 as a result of this proposal. The development potential of Lot 4853 is not being increased, the zoned area is simply being rearrange northwards to the incorporate balance of the site. This Rural zoned portion of the subject land is identified for tourism in both the PRS and PLPS. The land capability and geotechnical assessment undertaken in 2007 confirmed that the soils in the northern portion of the site have high nutrient retention characteristics and that up to 10 chalets could be readily accommodated within existing cleared areas, with adequate buffers to the creekline. Although the owner is yet to make a final decision on the location and staging of future Chalet developments, it is likely that only 6 will be established in the cleared area fronting the new subdivisional road adjoining Stoney Creek Road. The planned tourist accommodation (6 Chalets) in the southern portion of the site will complement the existing viticulture, aquaculture and cellar sales outlet, as well as the proposed restaurant. Development Approval has been granted for the Restaurant and it is proposed to expand both the existing aquaculture and viticulture enterprises.

Emergency access and egress will be coordinated within the subject land and will be integrated with adjacent developments. Fire safety is to be addressed though the provision of emergency water supply, use of Hazard separation zones and Strategic Fire Breaks/emergency access. The road network is permeable and allows for emergency vehicle access as well as emergency egress. The design concept includes linkages with the existing and proposed Strategic Fire Breaks in the adjoining developments, and provides for alternative egress for all lots. A Fire Management Plan (Refer Appendix C) has been prepared and relevant recommendations will be implemented through the rezoning, subdivision and development, as appropriate.

8. CONCLUSION

Based on detailed site analysis, there is justification to extend the Rural Residential zone and to rationalise the boundary of Special Site 18 to more closely align with the B1 and G1 Precincts shown in the endorsed Porongurup Rural Strategy (TPS Policy adopted 1997) and proposed Precincts 3 and 4 in the Planning Strategy. A slight deviation is advocated to more closely reflect the site characteristics (soil type, land capability, topography and vegetation) and the existing and potential land uses.

This proposal seeks to rationalise the zoning boundaries within Lot 4853 to more closely align with the Planning Precincts and to ensure efficient and sustainable use of the subject land, maximise its potential and facilitate the development of the cellar sales and Restaurant. The project would complement the existing vineyard and augment what is a well established, locally owned and operated business enterprise. Furthermore, it will add to the tourist attractions in Porongurup. It is proposed to retain and protect remnant vegetation (regrowth) by locating the development predominantly within the existing cleared areas.

This proposal accords with the general recommendations contained in the Porongurup Rural Strategy. It is consistent with objectives and specific recommendations of the B1 and G1 Precincts of the existing Strategy as well as the Planning Considerations and Future Proposals for Precincts 3 and 4 as set out in Appendix 4 of the Planning Vision/Local Planning Strategy.

The advantages, benefits and desirable outcomes of this zoning rationalisation and the subsequent development include:

- Retention and protection of existing vegetation and stream lines and landscape features;
- Development sites are well screened from tourist routes and the main lookouts within the Park so will not have any detrimental impact on amenity;
- Development is to be sensitively integrated with the attractive undulating landscape;
- The Precinct is located close to existing community facilities;

- The Precinct does not support and does not adjoin well established broadacre farming. It will not result in the loss of priority agricultural land.
- Enhanced tourism potential of the area, in particular the viticultural developments;
- Improved fire protection and management;
- The proposal is consistent with the planning objectives and recommendations contained in relevant Strategies and provides for more intensive use of land in environmentally and socially suitable areas;
- The endorsed G1 Precinct Plan provides the framework for coordinated subdivision and development

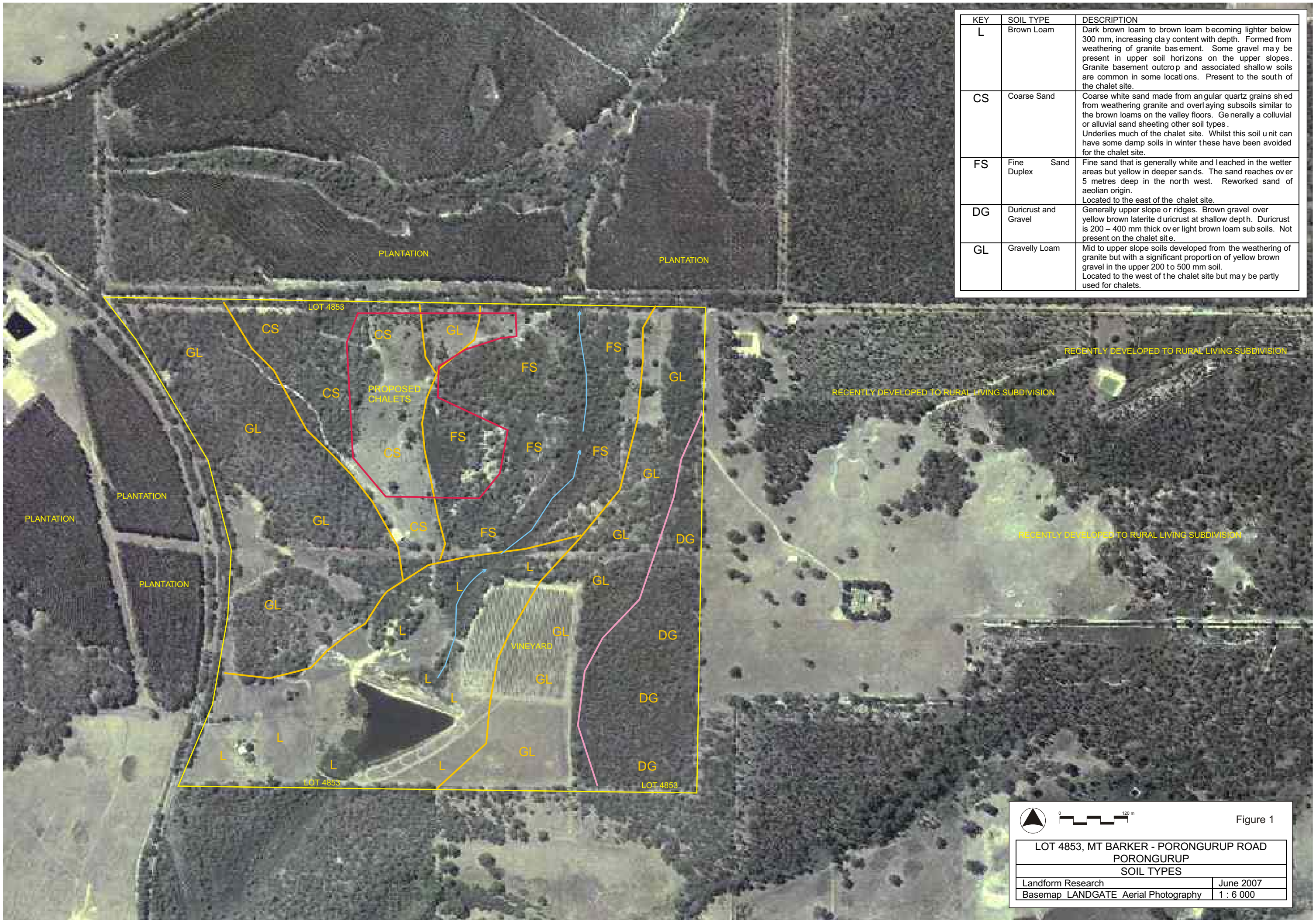
The subject land is identified in the endorsed Strategies for possible viticulture expansion, tourist development and Rural Residential development. This Amendment accommodates these various activities and seeks to rationalise the zoning of the land in response to site characteristics, and existing and proposed landuses. The rezoning complements existing land uses and will assist in achieving vegetation protection and biodiversity objectives. It is in keeping with the current Local and Regional Strategies and is based on sound planning principles, demonstrated capability, viability and compliance with contemporary local and State Policies.

Appendix A

Extracts from the 2006 & 2007

Environmental Assessments

Landform Research



KEY	SOIL TYPE	DESCRIPTION
L	Brown Loam	Dark brown loam to brown loam becoming lighter below 300 mm, increasing clay content with depth. Formed from weathering of granite basement. Some gravel may be present in upper soil horizons on the upper slopes. Granite basement outcrop and associated shallow soils are common in some locations. Present to the south of the chalet site.
CS	Coarse Sand	Coarse white sand made from angular quartz grains shed from weathering granite and overlying subsoils similar to the brown loams on the valley floors. Generally a colluvial or alluvial sand sheeting other soil types. Underlies much of the chalet site. Whilst this soil unit can have some damp soils in winter these have been avoided for the chalet site.
FS	Fine Sand Duplex	Fine sand that is generally white and leached in the wetter areas but yellow in deeper sands. The sand reaches over 5 metres deep in the north west. Reworked sand of aeolian origin. Located to the east of the chalet site.
DG	Duricrust and Gravel	Generally upper slope or ridges. Brown gravel over yellow brown laterite duricrust at shallow depth. Duricrust is 200 – 400 mm thick over light brown loam subsoils. Not present on the chalet site.
GL	Gravelly Loam	Mid to upper slope soils developed from the weathering of granite but with a significant proportion of yellow brown gravel in the upper 200 to 500 mm soil. Located to the west of the chalet site but may be partly used for chalets.

Figure 1

LOT 4853, MT BARKER - PORONGURUP ROAD
PORONGURUP
SOIL TYPES

Landform Research	June 2007
Basemap LANDGATE Aerial Photography	1 : 6 000



Figure 3A Proposed chalet site, view south



Figure 3B Proposed chalet site, view north



Figure 3C View north west across the proposed chalet site



Figure 3D Clearing in remnant vegetation to the west that can be used for chalets or waste water disposal



Figure 3E cleared area suitable for chalet or waste water disposal



Figure 3F Soil test Hole 1.



Figure 3G Soil test hole 3



Figure 3H View towards the south west. Soil test hole 11.

Figure 2

LOT 4853, MT BARKER - PORONGURUP ROAD	
PORONGURUP	
SITE PHOTOGRAPHS	
Landform Research	AUGUST 2006

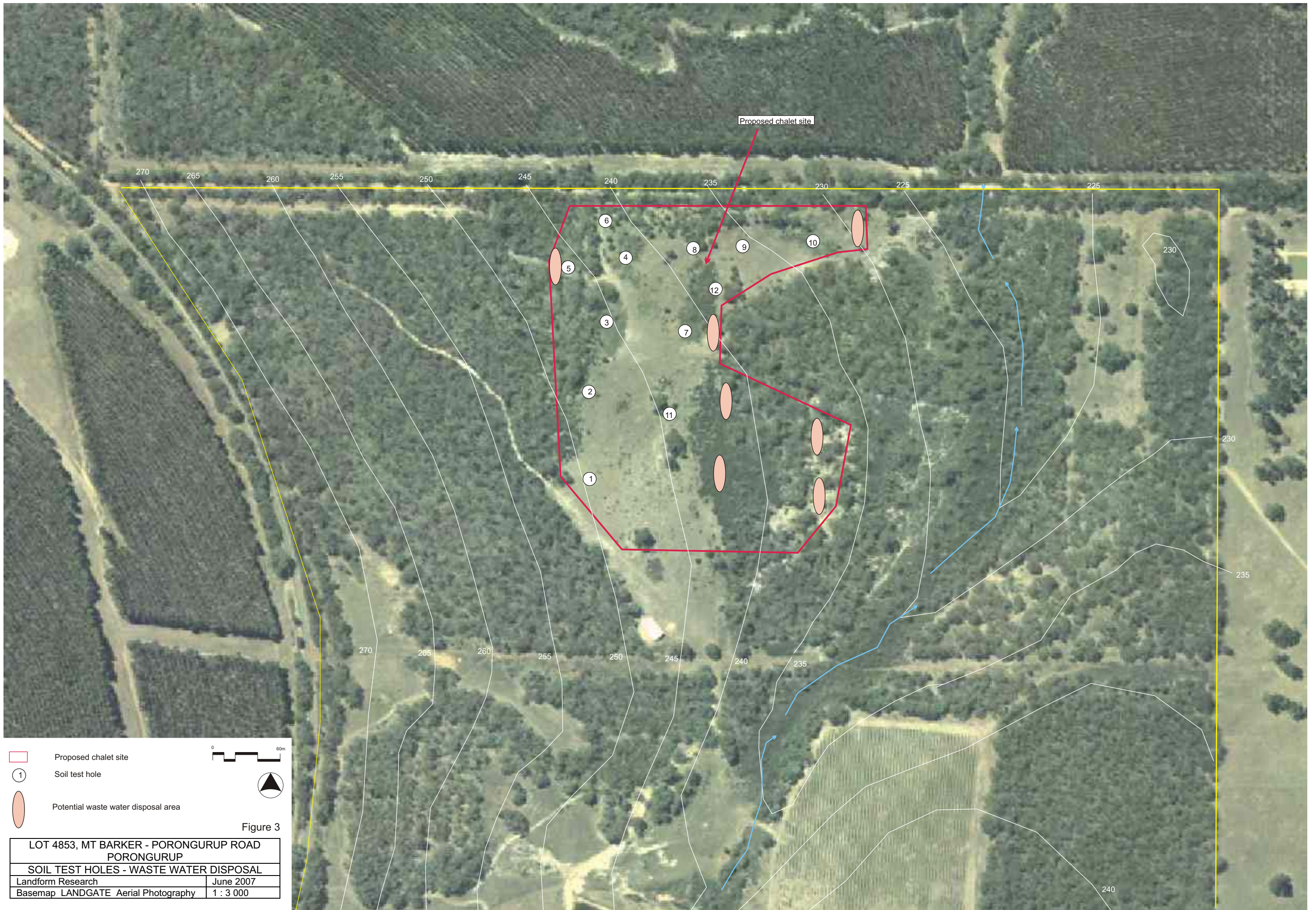


Figure 3

LOT 4853, MT BARKER - PORONGURUP ROAD	
PORONGURUP	
SOIL TEST HOLES - WASTE WATER DISPOSAL	
Landform Research	June 2007
Basemap LANDGATE Aerial Photography	1 : 3 000

Regolith and Hydrological Logs

Lindsay Stephens BSc (Geology) MSc (Botany)
 25 Heather Road Roleystone 6111
 Phone 9397 5145 Fax 9397 5350

Project	Ironwood Estate	Site Assessed by	L Stephens
Location	Lot 4853, Mt Barker – Porongurup Road, Porongurup	Date of Inspections	22 – 25 Aug 2000 and 30 Aug 2007

22 – 25 August 2000

Test Hole Number	12	Natural Surface		
Location	north	Base of Hole		
Test Hole Type	65 mm hand auger	Depth		
Diameter		Depth of static water level		
Depth	Description	Comments		
0 – 100 mm	Grey coarse sand			
100 - 790 mm	Light brown coarse quartz sand			
790 – 850 mm	Dark brown organoferricrete layer developed on gravelly loam subsoils on deeply weathered granite			
Groundwater	600 mm August 2000			
Comment				

30 August 2007

Test Hole Number	1	Natural Surface		
Location	south	Base of Hole		
Test Hole Type	Backhoe	Depth		
Diameter		Depth of static water level		
Depth	Description	Comments		
0 – 50 mm	Dark grey sand			
50 – 700 mm	Grey sand			
700 – 1 300 mm	Coffee rock, yellow brown sandy ferricrete			
Groundwater	Not intersected			
Comment				

Test Hole Number	2	Natural Surface		
Location	west	Base of Hole		
Test Hole Type	Backhoe	Depth		
Diameter		Depth of static water level		
Depth	Description	Comments		
0 - 40 mm	Dark grey sand			
40 – 500 mm	Grey sand			
500 – 600 mm	Cream sand			
600 – 1 400 mm	Dark brown blackish coated ferricrete			
Groundwater	Not intersected			
Comment				

Regolith and Hydrological Logs

Lindsay Stephens BSc (Geology) MSc (Botany)
 25 Heather Road Roleystone 6111
 Phone 9397 5145 Fax 9397 5350

Project	Ironwood Estate	Site Assessed by	L Stephens
Location	Lot 4853, Mt Barker – Porongurup Road, Porongurup	Date of Inspections	22 – 25 Aug 2000 and 30 Aug 2007

Test Hole Number	3	Natural Surface		
Location	west	Base of Hole		
Test Hole Type	Backhoe	Depth		
Diameter		Depth of static water level		
Depth	Description	Comments		
0 – 40 mm	Dark grey sand			
40 - 580 mm	Grey sand			
580 – 1150 mm	Yellow brown ferricrete			
1150 – 1 300 mm	White clay with minor yellow brown mottles			
Groundwater	Not intersected			
Comment				

Test Hole Number	4	Natural Surface		
Location	north west	Base of Hole		
Test Hole Type	backhoe	Depth		
Diameter		Depth of static water level		
Depth	Description	Comments		
0 - 170 mm	Grey sand			
170 - 500 mm	Light brown gravel with large gravel particles			
500 - 1100 mm	Light greyish gravel			
1100 – 1700 mm	White to very light grey massive gritty clay with minor cobbles of gravel and yellow brown mottles.	Granite saprolite		
Groundwater	1100 mm			
Comment				

Test Hole Number	5	Natural Surface		
Location	north west	Base of Hole		
Test Hole Type	backhoe	Depth		
Diameter		Depth of static water level		
Depth	Description	Comments		
0 - 80 mm	Dark brown sand			
80 - 800 mm	Brown sand with some gravel cobbles	PRI 410 mL/g, 26% stone		
800 - 1200 mm	Grey clay with minor yellow mottles			
Groundwater	1100 mm			
Comment				

Test Hole Number	6	Natural Surface		
Location	north west	Base of Hole		
Test Hole Type	backhoe	Depth		
Diameter		Depth of static water level		
Depth	Description	Comments		
0 - 150 mm	Grey sand			
150 - 400 mm	Pale grey sand			
400 - 700 mm	Cream yellow sand			
700 – 1400 mm	Pale yellow sandy loam clay			
1400-1870 mm	White to cream sandy loam clay with minor brown mottles.			
Groundwater	not intersected			
Comment				

Regolith and Hydrological Logs

Lindsay Stephens BSc (Geology) MSc (Botany)
 25 Heather Road Roleystone 6111
 Phone 9397 5145 Fax 9397 5350

Project	Ironwood Estate	Site Assessed by	L Stephens
Location	Lot 4853, Mt Barker – Porongurup Road, Porongurup	Date of Inspections	22 – 25 Aug 2000 and 30 Aug 2007

Test Hole Number	7	Natural Surface		
Location	central east	Base of Hole		
Test Hole Type	backhoe	Depth		
Diameter		Depth of static water level		
Depth	Description	Comments		
0 - 180 mm	Dark brownish grey sand			
180 - 400 mm	Grey brown sand			PRI 38 mL/g, 4% stone
400 - 700 mm	Very dark black brown organoferricrete with weak pan			
700 - 1400 mm	Cream sandy clay with minor yellow brown mottles			
Groundwater	not intersected			
Comment				

Test Hole Number	8	Natural Surface		
Location	north east	Base of Hole		
Test Hole Type	backhoe	Depth		
Diameter		Depth of static water level		
Depth	Description	Comments		
0 - 240 mm	Medium brown sand			
240 - 680 mm	Yellow brown sand			
680 - 1270 mm	Yellow clay with darker yellow mottles			
1270 - 1550 mm	White clay with minor red brown mottles			
Groundwater	not intersected			
Comment				

Test Hole Number	9	Natural Surface		
Location	north east	Base of Hole		
Test Hole Type	backhoe	Depth		
Diameter		Depth of static water level		
Depth	Description	Comments		
0 - 600 mm	Grey sand			
600 - 1100 mm	Grey brown sandy clay with yellow brown mottles			
1100 - 1300 mm	Olive grey sandy clay going olive brown			
Groundwater	not intersected			
Comment				

Test Hole Number	10	Natural Surface		
Location	north east	Base of Hole		
Test Hole Type	backhoe	Depth		
Diameter		Depth of static water level		
Depth	Description	Comments		
0 - 80 mm	Dark grey brown sand			
80 - 430 mm	Brown sand			
430 - 790 mm	Yellow brown gravel and cobbles			PRI 340 mL/g, 46% stone
790 - 1200 mm	Pale cream sand with yellow brown mottles			
Groundwater	not intersected			
Comment				

Regolith and Hydrological Logs

Lindsay Stephens BSc (Geology) MSc (Botany)
 25 Heather Road Roleystone 6111
 Phone 9397 5145 Fax 9397 5350

Project	Ironwood Estate	Site Assessed by	L Stephens
Location	Lot 4853, Mt Barker – Porongurup Road, Porongurup	Date of Inspections	22 – 25 Aug 2000 and 30 Aug 2007

Test Hole Number	11	Natural Surface		
Location	south east	Base of Hole		
Test Hole Type	backhoe	Depth		
Diameter		Depth of static water level		
Depth	Description	Comments		
0 - 140 mm	Pale grey sand			
140 – 800 mm	Cream sand			
800 - 1300 mm	Organoferricrete, dark brown with yellow brown ferricrete	pH tested after exposure to atmosphere for 6 months was 5.5 - 6.0. PRI > 1000 mL/g, 11% stone		
Groundwater	not intersected			
Comment				



Department of
Industry and Resources
 Chemistry Centre (WA)



**CHEMISTRY
 CENTRE**

Your Ref:
 Our Ref: Lab. No. 06A131/1-4
 Enquiries: D.Allen

125 Hay Street, East Perth
 Western Australia 6004
 ABN 69 410 335 356

Telephone: +618 9222 3177
 Facsimile: +618 9325 7767
 www.ccwa.wa.gov.au

L. Stephens
 Landform Research
 25 Heather Road
 ROLEYSTONE WA 6111

Report on 4 samples of soil
 received on 12-SEP-2006

20-SEP-2006

LAB NO	SAMPLE	Stones	P (PRI) mL/g
06A		%	
131_001	H5	26	410
131_002	H7	4	38
131_003	H10	46	340
131_004	H11	11	>1000

Stones = Stones greater than 2mm
 P (PRI) = Phosphorus Retention Index by method S15
 % = per cent
 mL/g = millilitres per gram

The results apply only to samples as received.

D.G. ALLEN
 Principal Chemist

LAND RESOURCES CHEMISTRY SECTION

This report may only be reproduced in full.

ACID SULFATE ASSESSMENT FORM

This assessment sheet is modified from Planning Bulletin 64, Draft December 2003.

Location	Lot 4853, Mt Barker – Porongurup Road, Porongurup
Date	20 April 2006 - Site assessed 4 and 6 August 2005

	QUESTION	YES	NO	COMMENT
STEP 1				
1	Is the land depicted in Figures 1 - 11 of the Western Australian Planning Commission's Planning Bulletin No 64: Acid Sulfate Soils, as having a "high risk of Actual Acid Sulfate Soil (AASS) and Potential Acid Sulfate (PASS) < 3 m from surface?		J	The area is outside current mapping
2a	Is the land located in an area whether depicted in Figures 1 - 11 or not, where site characteristics and local knowledge suggest that there is a significant risk of disturbing acid sulfate soils at this location?		J	No, it is on a midslope
2b	Does site interpretation suggest that there is a significant risk of disturbing acid sulfate soils at this location; soils, peat or sulfides in rock?		J	No. There are unlikely to be any deep excavations or drainage.
STEP 2		IF YES TO ANY OF THE ABOVE GO TO STEP 2		
3a	Are any dewatering works to be undertaken?		J	No
3b	Is the extraction of superficial groundwater likely to expose peaty soils?		J	No
4a	Is the surface elevation <= 5 m AHD and is excavation of >= 100 m ³ of soil proposed?		J	The elevation ranges from 225 to 270 metres AHD.
4b	Are drainage or earthworks likely to expose subsoils potentially susceptible to acid sulfate conditions?		J	No evidence of at risk soils in the soil test holes.
5a	Is the surface elevation > 5 m AHD and is excavation of >= 100 m ³ with an excavation depth of >=2 metres proposed?		J	No deep extensive excavations are proposed
5b	Are peaty soils likely to be exposed through excavation		J	No deep extensive excavations are proposed
5c	Are sulfide containing rocks or materials to be excavated and or processed?		J	
STEP 3		IF YES TO ANY OF THE ABOVE, CARRY OUT A PRELIMINARY SITE ASSESSMENT IN ACCORDANCE WITH DEPARTMENT OF ENVIRONMENT GUIDELINES		
6	Did the Preliminary Site Assessment reveal the presence of acid sulfate soils?		J	
STEP 4		IF YES, CARRY OUT A DETAILED SITE ASSESSMENT IN ACCORDANCE WITH DEPARTMENT OF ENVIRONMENT GUIDELINES		
7	Did the Detailed Site Assessment reveal the presence of acid sulfate soils?		J	
		IF YES, MODIFY THE DESIGN OF THE PROPOSAL OR PREPARE AN ACID SULFATE MANAGEMENT PLAN		

Comment	No risk of disturbing acid sulfate conditions, during sand excavations. No further consideration of Acid Sulfate is necessary at this stage.
----------------	---

Available Reports	J	Land Capability Assessment (Landform Research).
	J	Preliminary Site Assessment Results
	J	Detailed Site Assessment Results
	J	The proposal has been designed to avoid disturbance of acid sulfate soils at this location
		Completed acid sulfate management plan

SIGNATURE
ASSESSORS NAME

.....
Lindsay Stephens / Landform Research

DATE...10/6/2007

Appendix B

Flora & Vegetation Assessment

Landform Research - May 2012



FLORA AND VEGETATION ASSESSMENT

Proposed Subdivision,
Lot 4853, Porongurup Road,
Porongurup

Shire of Plantagenet

May 2012

FLORA AND VEGETATION ASSESSMENT

Proposed Subdivision,
Lot 4853, Porongurup Road, Porongurup



SUMMARY

A subdivision of 12 lots ranging from 1.35 hectares to 7.03 hectares is proposed for the north eastern corner of Lot 4853, Porongurup Road, Porongurup.

The subdivision is located in previously cleared or disturbed areas although some vegetation of lesser condition will be cleared. The subdivision also seeks to protect a significant area of remnant vegetation in Good to Excellent Condition to enable its long term retention.

The subdivision is subject to Scheme Provisions that dictate that building envelopes will be used, strategic fire breaks prepared and maintained and that there will be no development within the creekline buffers and remnant vegetation outside the nominated development areas.

The road network has been designed along fire breaks and existing tracks. The crossing of the creekline is an existing cleared track that enables connection of the eastern and western portions of the site.

Conclusions

No Threatened or Priority Flora were observed in the areas to be cleared for the building envelopes and roads.

No Threatened or Priority Vegetation Communities occur on site.

The vegetation is Medium Jarrah Marri Forest that is locally well represented and meets the criteria for 30% retention criteria within reserves at 72% of vegetation remaining which indicates it is well represented and under low threat.

The proposal aims to provide better protection of the vegetation within higher vegetation condition than is afforded now.

The Scheme Provisions provide for no clearing or disturbance of vegetation outside the building envelopes and for fire management purposes. Currently the vegetation is on a rural property with only the Clearing Regulations for protection.

The amount of lower quality vegetation to be taken by the development is relatively small and will not significantly impact on the Vegetation Association.

Restrictions are recommended to cover the marking of lot boundaries, the use of strategic firebreaks rather than boundary fire breaks, allocation of building envelopes and the prohibition of stock.

CONTENTS

SUMMARY

1.0	PROPOSED DEVELOPMENT	1
2.0	METHODOLOGY	1
2.1	Aims of the Survey	1
2.2	Methods of Survey	2
3.0	PHYSICAL ENVIRONMENT	3
3.1	Site Description	3
3.2	Climate	3
3.3	Hydrology	4
4.0	VEGETATION ASSESSMENT	4
4.1	Community Types	4
4.2	Flora on Site	6
4.3	Species List	7
4.4	Plant Density	9
4.5	Vegetation Structure	9
5.0	SIGNIFICANT VEGETATION	10
5.1	Threatened, Priority or Significant Flora	10
5.2	Threatened or Priority Ecological Communities	11
5.3	EPBC Legislation	11
6.0	VEGETATION CONDITION	11
7.0	VEGETATION REPRESENTATION	12
8.0	MANAGEMENT OF THE SUBDIVISION - DEVELOPMENT	14
8.1	Protection of Biodiversity	14
8.2	Recommended Site Management	16
8.2.1	Fuel Reduction	16
8.2.2	Fencing	17
8.2.3	Fire Breaks	17
8.2.4	Weed Management	18
8.2.5	Dieback Management	19
9.0	DISCUSSION	18
	REFERENCES - READING	22
	RARE and SIGNIFICANT FLORA and VEGETATION NOTES	24

FIGURES

Figure 1	Vegetation Communities
Figure 2	Subdivision Plan
Figure 3	Vegetation Condition – Subdivision Overlay
Figure 4	Site Photographs
Figure 5	Site Photographs
Figure 6	Examples of Fuel Reduction Zones

APPENDICES

Appendix 1	NatureMap and EPBC database searches
------------	--------------------------------------

Flora and Vegetation Assessment

Subdivision, Part Lot 4853, Porongurup Road, Porongurup

1.0 PROPOSED DEVELOPMENT

The development consists of 12 lots located in the north eastern corner, generally located in previously cleared or disturbed areas. In this portion of the Great Southern the climate and soil conditions ensure rapid regrowth of native vegetation on any cleared areas if they are neglected.

The subdivision is subject to Scheme Provisions that dictate that building envelopes will be used, strategic fire breaks prepared and maintained and that there will be no development within the creekline buffers and remnant vegetation outside the nominated development areas.

The Scheme Provision are part of an existing Zone for the local area so apply to the whole zone.

The road network has been designed along fire breaks and existing tracks. The crossing of the creekline is an existing cleared track that enables connection of the eastern and western portions of the site.

In most cases the Building Protection Zone is located in cleared land that is classified as Completely Degraded or Degraded. See Figure 3. This zone will be essentially totally cleared.

The Hazard Reduction Zone has to have the bushfire fuels maintained at 4 – 6 tonnes per hectare. This does not mean total clearing but rather the thinning of trees close to each other and some thinning of the understory and ground cover. These areas are also located generally in areas of disturbed vegetation. See Figure 6 for examples of the fuel loadings.

2.0 METHODOLOGY

2.1 Aims of the Survey

The aims were to determine the quality of the vegetation, search for significant species and provide an assessment of the potential impact of the subdivision on the environmental values of the local area.

Only the vegetation directly impacted on by the proposed developments were searched thoroughly. Other areas were walked through to determine the environmental values, but comprehensive species checks were not made in those areas. Areas such as the vegetation to be protected along the watercourse was not studied in detail and a species list not produced for that area, for example.

The study used the methodology outlined in the Environmental Protection Authority (2004) Guidance Statement, *Terrestrial Flora and Vegetation Surveys for Environmental Impact Assessment in Western Australia*, No 51 June 2004.

Therefore the aim was to search intensively each building envelope and fire protection area and provide clearing restrictions on the remainder of the lot to protect that vegetation. That is the aim was to protect what was on the areas not searched intensively rather than to determine what exactly was there.

2.2 Methods of Survey

Lindsay Stephens of Landform Research conducted the search for Priority and Declared species in parts of Lot 4853 on 19 December 2010 that may be impacted on by reductions of vegetation caused by the allocation of building envelopes and associated fuel reduction areas.

The site had been investigated on several other occasions; 22 – 25 August 2000, 30 August 2006 and 5 January 2007, predominantly for land and geotechnical capability for subdivision and chalet developments. During those studies the vegetation was reviewed to determine the environmental values to be incorporated into the planning for the proposed developments.

The vegetation was assessed for species richness community type and condition.

Searches of the Department of Environment and Conservation and WA Herbarium databases were made prior to the site inspection and are included in this report. The databases listed under the *Commonwealth Environment Protection and Biodiversity Conservation Act 1999* were also searched.

The taxa were then revisited to check the identifications, particularly in relation to the Declared Rare and Priority Species.

Determinations and inferences on the Vegetation Complexes and Floristic Community Types were made in a number of ways, relating to comparisons to published floristics and geomorphic and regolith matching.

- Bush Forever used the same methodology based on comparisons to published floristics and geographic information, Bush Forever 2000, Volume 2 page 310.
- Comparisons were made to published boundaries of Vegetation Complexes in ATA 2001.
- The Commonwealth EPBC databases were searched.
- Interrogation of the National Resource Mapping database through the Department of Agriculture and Food database.
- Comparisons were made to published boundaries of Vegetation Complexes in Beard J S, 1981, *Vegetation Survey of Western Australia, Albany - Mt Barker, 1: 250 000 Series*. Vegmap Perth.

- Comparison to regolith maps such as Muhling P C and A T Brakel, 1985, 1 : 250 000 *Geological Series, Mount Barker – Albany*, Geological Survey of Western Australia.
- Soil and regolith mapping and assessment of the geomorphology by Lindsay Stephens at the time of the site inspections and in the past. Soil and regolith mapping has been found to be very closely aligned to species composition, through extensive field mapping by Landform Research, with small changes to the clay or sesqui-oxide content being related to the introduction and deletion of particular indicator species.
- Soil and regolith mapping and assessment of the geomorphology by Lindsay Stephens at the time of the site inspections.
- Comparisons to databases of Regolith and Vegetation Communities held by Landform Research and the field experience of Lindsay Stephens.

3.0 PHYSICAL ENVIRONMENT

3.1 Site Description

The site lies on the northern flanks of the Porongurup Ranges to the east of Mount Barker, in an area regarded as scenic. The site has been settled since the 1900's with land clearing occurring sporadically over that time. The main land uses over the years have been grazing and cropping together with some orchards. In more recent times tree plantations have been established and viticulture has been increasingly developed. A plantation occurs to the north west of the site and vines are planted in the central west, using water from the large dam in that area.

A vineyard has been established and is linked to a winery on site.

Soils of the site are predominantly sand over clay duplex, with some variations dependant on the type and thickness of overlying sand, the proportion of remnant laterite gravel and duricrust and the exposure of the clay subsoils.

The key soil types are listed below although descriptions of the soils are shown on the attached Soil Map.

3.2 Climate

The climate is warm, dry summers with cool, wet winters.

Weather data is recorded at Mount Barker, but the local climate can be expected to be slightly different due to the orographic effects of the Porongurup Ranges. This will normally create higher rainfall but the northern side will be in a partial rain shadow and so rainfall may be similar to Mount Barker where rainfall is about 756 mm per year.

Temperatures have summer maxima of just over 27°C in the hottest month of January down to just under 15°C in the coldest month, June. Minimum temperatures range down to 6 ° C in the coldest months. The cool winter temperatures will assist potential fruit crops that require a chill factor but can also lead to the potential for spring frosts which can damage flowering and shoot development.

Annual evaporation is 1000 mm per year. Rainfall exceeds evaporation for 8 months of the year.

3.3 Hydrology

Water runoff from the area is not great apart from storm events.

The surface sands fill with water in winter and further rainfall will result in runoff from the soil surface. There is evidence of increased recharge occurring since clearing. For example the cleared areas in the west are undergoing revegetation by species better suited to wetter conditions.

Water quality in the dams on the site is good. The salinity of water in dams varies from catchment dams of 55 mg/L to 1100 mg/L salt (10 – 200 mSm) depending on the season. This water is suitable for all forms of horticulture although in some cases slightly above potable quality. The water courses range up to 935 mg/L salt (170 mSm).

4.0 VEGETATION ASSESSMENT

4.1 Community Types

The remnant vegetation on site is predominantly Jarrah – Marri Woodland. There are slight differences based on the soil types, moisture levels and past disturbances.

The Riverine vegetation is dominated by wetland species in particular *Eutaxia virgata* Regrowth Thicket. The original and climax vegetation is Jarrah – Marri Woodland as evidenced by the adjoining vegetation communities.

There are several areas of previously cleared land in the central north that is dominated by *Taxandria* Regrowth Thicket. This lies outside the area to be impacted on.

The vegetation was therefore mapped as several sub areas although apart from the riverine vegetation the overall vegetation is similar. The taxa listed in the species lists are representative of all taxa recorded in each area. With the various levels of disturbance across the site the taxa listed for each subarea could be taken as indicative and in an undisturbed condition a particular subarea might be expected to include taxa from the adjoining vegetation.

In some areas such as WSE the additional taxa are mainly identified. That is the vegetation can be expected to include many taxa from W, H, M and W with the taxa only observed in that subarea mainly listed.

The annotations used are ;

W West and central west on sloping laterite gravel.

H Central north on coarse white sand shed from weathering granite and overlying loam and laterite loam soils.

- M Degraded and previously cleared laterite gravel with a finer sand sheet cover.
- WE Eastern margin on laterite gravel ridge that has previously been cleared and disturbed.
- WSE Eastern margin on laterite gravel ridge that has generally remained undisturbed.
- WET Riverine vegetation on moist sands.

Marri - Jarrah Laterite Woodland (W, WE, WSE)

Vegetation associated with the laterite gravel. *Eucalyptus marginata* (Jarrah) and *E. calophylla* (Marri) Woodland to Forest, with an understorey typified by *Xanthosia*, *Hibbertia*, *Xanthorrhoea*, *Acacia*, and *Hakea*.

Marri - Jarrah Sand Woodland to Heath (H, M)

Vegetation on the sands in the north is not as tall but is more woodland like. It consists of a woodland of *Eucalyptus calophylla* and *E. marginata* on sandy soils often over loam subsoils, with *Xanthosia*, *Lepidosperma*, *Acacia* and increased Cyperaceae, Restionaceae and *Taxandria*.

Riparian and Damp Shrubland and Woodland

The vegetation associated with the stream line in the north is typified by moist soils and the presence of species from the adjoining sand areas. It has in part previously been cleared and is dominated by *Eutaxia virgate* with wet site species such as Shrubs and trees on moist soils *Cyathochaeta avenacea*, *Taxandria juniperina*, *Lepidosperma effusum*, *Melaleuca microphylla* and *Astartea fascicularis*.

Taxandria Regrowth

Taxandria species dominate in regrowth areas where cleared pasture land is being colonized by a variety of *Taxandria* Thicket with species such as *Taxandria linearifolia*, *T. marginata*, *T. parviceps* and *T. juniperina*. This is an interim community that is not considered separately.

The vegetation complexes of the Albany area, including the Porongurup Ranges, were studied by ATA 2001.

ATA 2001, list the vegetation across almost the whole site and surrounding area as **Vegetation Complex 126, *Eucalyptus marginata*/*Corymbia calophylla* Medium Forest F**. This is described as "Medium Forest of *Eucalyptus marginata*/*Corymbia calophylla* forest on low plains (<15 m elevation). Soils are mostly yellow sands. Species include *Banksia attenuata*, *B. ilicifolia*, *Hakea amplexicaulis*, *Isopogon formosus*, *Synaphea* sp, *Stirlingia tenuifolia*, *Persoonia* sp."

Vegetation Complex 126 encompasses vegetation subareas, H, M, WE, and WSE. It also extends across WET although that vegetation is riparian and not picked up by the scale of mapping and should not be part of Complex 126.

The western edge adjacent to the Mount Barker Porongurup Road is listed as Vegetation Complex 125, ***Eucalyptus marginata/Corymbia calophylla* Medium Forest E**. This is described as “Medium *Eucalyptus marginata/Corymbia calophylla* forest on low hills (30 m to 80 m). Soils are mostly yellow sands. Species include *Banksia attenuata*, *B. ilicifolia*, *Hakea amplexicaulis*, *Agonis (Adenanthos?) obvatus*, *Synaphea* sp, *Stirlingia tenuifolia*, *Hovea* sp.”

Vegetation Complex 125 refers to vegetation subarea W.

The National Resource Mapping database through the Department of Agriculture and Food database lists the remnant vegetation across the whole area as Vegetation Association 3, Medium Forest Jarrah – Marri. The database lists the vegetation Type as 897, Medium Forest Jarrah – Marri.

4.2 Flora on Site

The species recorded during the site investigation are listed in Tables 1A and 1B. A total of 96 native taxa and three exotic species were recorded within the vegetation across all vegetation subareas, although the number within each subarea is often reduced. For example sub area M has previously been cleared and had a total of 27 taxa. The exotic taxa were not searched but rather the vegetation was examined for Declared and Significant Environmental weeds. There are many more exotic species in the pasture than the 3 listed.

Subarea WSE is in much better vegetation condition south of the building envelope. Even though only 28 taxa are listed for that site, as previously noted the listed taxa are generally those which were only observed in Subarea WSE to illustrate that there are some differences in the vegetation.

This total is regarded as representative of the vegetation on site with a high representation of the total species present.

Species richness increased in relation to the past clearing history. The southern part of WSE outside the building envelope is the most rich because the vegetation is the most intact. Subareas W and H have been subjected to some past disturbances which has slightly reduced their species richness and Subarea M has previously been cleared. Whilst there are a number of taxa in Subarea M many are scattered plants of remnant species rather than vegetation of a more intact community.

4.3 Species List

Table 1A Native species recorded during the site inspections and within the Vegetation Communities.

FAMILY	GENUS - SPECIES	W	WE	WSE	H	M	Wet
Dennstaedtiaceae	<i>Pteridium esculentum</i>	X			X		
Lindsaeeae	<i>Lindsaea linearis</i>				X	X	
Apiaceae	<i>Platysace compressa</i>	X					
	<i>Xanthosia candida</i>	X			X	X	
	<i>Xanthosia rotundifolia</i>	X			X	X	
Anthericaceae	<i>Burchardia congesta</i>					X	
	<i>Johnsonia lupulina</i>				X	X	
	<i>Thysanotus multiflorus</i>					X	
Asteraceae	<i>Asteridea nivea</i>			X			
Cyperaceae	<i>Cyathochaeta avenacea</i>		X		X	X	
	<i>Hypolaena exsulca</i>				X		
	<i>Isolepis setiformis</i>		X				
	<i>Lepidosperma gracile</i>	X	X	X	X		
	<i>Lepidosperma pubisquatum</i>						
	<i>Lepidosperma squamatum</i>		X	X	X		
	<i>Mesomelaena tetragona</i>			X		X	
	<i>Mesomelaena stygia</i>			X			
	<i>Schoenus sp</i>	X					
	<i>Schoenus grandiflorus</i>	X					
	<i>Schoenus unispiculatus?</i>				X		
Dasygogonaceae	<i>Kingia australis</i>		X		X		
Dilleniaceae	<i>Hibbertia amplexicaulis</i>		X				
	<i>Hibbertia pilosa</i>		X	X			
	<i>Hibbertia inconspicua</i>		X				
Droseraceae	<i>Drosera pallida</i>						
Epacridaceae	<i>Andersonia caerulea</i>	X					
	<i>Astrolobia pallidum?</i>	X					
	<i>Leucopogon australis</i>	X	X			X	
	<i>Leucopogon eliator</i>			X			
	<i>Leucopogon propinquus</i>					X	
	<i>Leucopogon verticillatus</i>					X	
Goodeniaceae	<i>Dampiera alata</i>				X		
	<i>Goodenia incana</i>		X	X	X	X	
Haemodoraceae	<i>Conostylis setigra</i>	X					
	<i>Haemodorum simplex</i>		X				
Iridaceae	<i>Patersonia juncea</i>				X		
	<i>Patersonia occidentalis</i>	X			X	X	
Juncaceae	<i>Juncus palidus</i>		X				
Lamiaceae	<i>Hemiandra glabra</i>		X				
Mimosaceae	<i>Acacia browniana</i>		X		X		
	<i>Acacia divergens</i>				X		
	<i>Acacia gilbertii</i>			X			
	<i>Acacia myrtifolia</i>				X		
	<i>Acacia pulchella</i>			X			
Myrtaceae	<i>Astartea sp juniperiana</i>					X	
	<i>Calistemon glaucus</i>						
	<i>Corymba (Eucalyptus) calophylla</i>	X	X	X	X	X	
	<i>Eucalyptus marginata</i>	X	X	X	X	X	
	<i>Taxandria juniperina</i>			X			
	<i>Taxandria linearifolia</i>	X					
	<i>Taxandria marginata</i>			X	X		
	<i>Taxandria parviceps</i>			X		X	

		W	WE	WSE	H	M	WET
Orchidaceae	<i>Lyperanthus spp</i>						
	<i>Microtis alba</i>					X	
Orobanchaceae	<i>Orobranche minor</i>		X	X			
Papilionaceae	<i>Bossiaea linophylla</i>	X					
	<i>Bossiaea ornata</i>	X					
	<i>Bossiaea praetermissa</i>			X	X	X	
	<i>Callystachyas lanceolata</i>	X					
	<i>Chorizema rhombeum</i>		X	X			
	<i>Daviesia cordata</i>	X					
	<i>Daviesia preissii</i>		X	X			
	<i>Eutaxia virgata</i>						X
	<i>Gompholobium marginatum</i>	X					
	<i>Jacksonia spinosa</i>	X					
	<i>Sphaerolobium gracile</i>		X				
Pittosporaceae	<i>Sollya heterophylla</i>				X	X	
Phormiaceae	<i>Stypandra glauca</i>	X					
Plumbaginaceae	<i>Comosperma confertum</i>	X					
Poaceae	<i>Austrodanthonia acerosa?</i>		X	X			
	<i>Austrostipa compressa</i>						
	<i>Neurachne alopecuroidea</i>	X					
	<i>Poa porphyroclados</i>						
Polygalaceae	<i>Comesperma confertum</i>	X	X				
	<i>Muehlenbeckia adpressa</i>					X	
Proteaceae	<i>Gompholobium confertum</i>			X			
	<i>Grevillea pulchella</i>			X		X	
	<i>Grevillea trifida</i>			X			
	<i>Hakea prostrata</i>		X	X			
	<i>Synaphaea gracillima</i>	X	X				
Rhamnaceae	<i>Cryptandra arbutiflora</i>		X	X			
Restionaceae	<i>Anarthria prolifera</i>			X		X	
	<i>Anarthria scabra</i>						
	<i>Desmocladius fasciculatus</i>	X	X		X	X	
	<i>Meeboldina coangustata?</i>		X				
Rubiaceae	<i>Opercularia hispidula</i>	X					
	<i>Opercularia volubilis</i>	X					
Rutaceae	<i>Boronia fastigiata</i>	X				X	
Santalaceae	<i>Leptomeria squarrulosa</i>			X			
Stylidiaceae	<i>Stylidium amoenum</i>	X					
	<i>Stylidium repens</i>	X			X		
Thymelaeaceae	<i>Pimealea suaveolens</i>	X					
Tremandraceae	<i>Tetrateca setigra</i>		X			X	
Xanthorrhoeaceae	<i>Xanthorrhoea gracilis</i>	X				X	
	<i>Xanthorrhoea brevistyla</i>	X	X				
	<i>Xanthorrhoea preissii</i>	X		X			
TOTAL NATIVE SPECIES		96	36	29	28	25	27

Note

The use of *Dryandra* is continued because the incorporation of *Dryandra* into the Genus *Banksia* is not recognised by all botanists or in the literature (eg Collins et al 2008, and Cavanagh and Pieroni, 2006). Moreover, the proposed name change removes the classification of a group of closely related plants and results in a loss of botanical understanding for most of the community.

Table 1B Exotic species recorded during the site inspections.

FAMILY	GENUS - SPECIES	SAMPLE PLOTS 100 m ²					
		W	WE	WSE	H	M	WET
Mimosaceae	<i>Acacia spp</i>			X		X	
Orchidaceae	<i>Monadenia bracteata</i>					X	
Poaceae	<i>Briza maxima</i>	X			X	X	
TOTAL EXOTIC SPECIES		3					

The cleared areas have a range of pasture species as groundcover, predominantly grasses. However in the east are several clumps of eastern states *Acacia* that are being controlled by cutting and treatment with herbicide.

In general the forested areas remain relatively weed free with little edge incursions.

4.3 Plant Density

The remnant vegetation is more dense away from areas of previous clearing and disturbances and is related to the past clearing history.

4.5 Vegetation Structure

- Photographs of the vegetation are attached as Figure 4 and 5, which provide information on the vegetation structure.
- The structure varies from a Low Forest to Thicket in the north and central areas, with a Heathland in the south eastern corner.
- A summary of the vegetation structure is presented in the table below.

VEGETATION STRUCTURE	HEIGHT	Vegetation Subareas W, H, and WSE	Vegetation Subarea M	Vegetation Subarea WE
Overstorey	> 4 m	Scattered trees and low forest Excellent condition.	Scattered trees and low forest Excellent to Good Condition.	Scattered trees. Good to Degraded Condition. Some taller vegetation is exotic <i>Acacia</i> .
Tall Shrub layer	2 – 4 m	Dense cover of tall shrubs merging into the Overstorey. Merges into the Lower Shrub Layer in lower more shaded moister sites. Excellent to Good condition.	Partially disturbed taller shrub layer that in part is regrowth from past grazing. Merges into the Lower Shrub Layer in lower more shaded moister sites. Good Condition.	Varies from not present in the west to partially present and in better condition in the east. Completely Degraded to Good Condition.
Lower Shrub Layer	0.5 – 2 m	Lower shrubs merging into the Ground Cover. Excellent condition to	Lower shrubs merging into the Ground Cover but in part are regrowth	Varies from Completely Degraded in the west to Good with some parts of

		Good.	from past grazing. Good to Very Good Condition.	Very Good Condition in the south east.
Ground Cover	<0.5 m	Excellent to Good condition.	Ground Cover but in part are regrowth from past grazing. Good to Very Good Condition.	Varies from Completely Degraded in the west to Good with some parts of Very Good Condition in the south east.

5.0 SIGNIFICANT VEGETATION

5.1 Threatened, Priority or Significant Taxa

The species listed on the DEC and WA Herbarium databases were searched. Although a number of taxa in the Albany region are listed as Priority or Threatened species, none of the taxa recorded on site were listed.

Databases held under the *Commonwealth Environment Protection and Biodiversity Conservation Act 1999* were searched but no taxa from the site are listed. The whole of the Shire of Plantagenet Local Government area was searched on the databases and this included part of the Stirling Ranges. This wider area was searched because it has been found that when a local area is searched a much wider area of species and areas of interest are also included.

A Nature Map search was made with a 5 km radius. This extended up onto the Porongurup Range. A number of taxa were shown to occur within that search area.

Asplenium flabellifolium	T
Banksia seneciifolia	P3
Centrolepis caespitosa	P4
Desmocladius biformsi	P3
Drakea confluens	T
Gastrolobium subcordatum	P4
Hakea lasiocarpa	P3
Hakea oldfieldii	P3
Hibbertia porongurupensis	P4
Leucopogon cymbiformis	P2
Marianthus granulatus	P4
Omduffia calthifolia	T
Pleurophascum occidentale	P4
Spehotma drummondii	T
Spyridium spadiceum	P2
Thryptomene saxicola	P3

These searches covered a very wide area to try not to restrict potential species, and as such included many species that have not been recorded near the locality.

The number of species of Priority status and some with Threatened status for the Porongurup Range is partly because the Porongurup Range is an isolated remnant of a higher suite of peaks that have been climatically isolated for some time leading to species diversification.

The study site is off the slopes of the Porongurup Range and has potentially, experienced much more interchange of genetic material and therefore may be less likely to contain significant taxa than the more isolated higher peaks and deep wet valleys.

It is possible that some significant species do occur on site in areas not searched, such as the south eastern corner remnant which is to be excluded from development. In that area are several taxa that were not recorded or were rarely recorded elsewhere, such as *Kingia australis*.

As the remnant vegetation is relatively close to the Porongurup Range, the better remnants are recommended to be protected where possible.

This has directed where the developments have been located, with the building envelopes being located in the cleared or most degraded vegetation. The remaining vegetation should be protected where possible because of its potential to contain listed or significant species.

No plant communities or taxa are listed as a Threatened Ecological Community or taxa under the *Commonwealth Environment Protection and Biodiversity Conservation Act 1999*.

5.2 Threatened or Priority Ecological Communities

No plant communities or taxa listed as a Threatened or Priority Ecological Community on DEC databases were recorded within the search area which has a 5 km radius to the site.

The list is attached.

5.3 EPBC Legislation

Databases held under the *Commonwealth Environment Protection and Biodiversity Conservation Act 1999* were searched. See attachment.

No vegetation or taxa listed under Commonwealth legislation were observed during the site investigations. In addition no unusual or unidentified species were recorded. (See attached notes for explanations).

6.0 VEGETATION CONDITION

The Vegetation Condition Score used in this study is that used in Bush Forever 2000.

The vegetation across the subdivision area varies from Completely Degraded to Excellent. The most degraded areas have previously been cleared. These lie along the western edge and the north eastern corner.

The central creekline is largely untouched as is the larger remnant in the south eastern corner.

Apart from the existing clearings and disturbance from firebreaks and tracks there is almost no signs of disturbance. Ground disturbed in the past rapidly regrows in the Porongurup area and disturbances from a decade or more ago may not be readily recognised from site inspections.

The cleared areas are however subject to regrowth as stock and cultivation have not been used in recent years.

This can be seen in the attached photographs, particularly Figure 4 where *Taxandria* spp are rapidly colonizing cleared areas in the centre of the site. Whilst *Taxandria* is a local native species its growth habits and regrowth potential make it an opportunist and capable of producing almost a monoculture of vegetation.

The same applies for *Pteridium esculentum*, Bracken Fern. See Figure 4.

The regrowth areas whilst having vegetation that can recover and increase in biodiversity over time, are currently significantly floristically diverse.

A description of the vegetation structure is included in 4.2 Vegetation on Site; Species List - Richness where additional details are provided on the vegetation structure and quality.

7.0 VEGETATION REPRESENTATION

EPA Position Statement No 2, December 2000, *Environmental Protection of Native Vegetation in Western Australia*, specifically targets the retention of native vegetation in the Agricultural Areas in 4.1, *Clearing in the agricultural areas for agricultural purposes*. In 4.3, *Clearing in other areas of Western Australia*, it is unclear what "other areas" refers to, but may refer to retention of a 30% threshold in non agricultural areas.

Section 4.3 *Clearing in other areas of Western Australia*, (EPA Position Statement No 2, December 2000) expects that clearing will not take vegetation types below the 30% of the pre-clearing vegetation as recommended by ANZECC, 1999, *National Framework for the Management and Monitoring of Australia's Native Vegetation*. The National Objectives and Targets for Biodiversity Conservation 2001 - 2005 (Commonwealth of Australia 2001) also recognise 30% as the trigger value.

Mapping on the various database shows the same vegetation as occurring widely through many of the forested areas of the south west of Western Australia.

The National Resource Mapping database through the Department of Agriculture and Food database lists the remnant vegetation across the whole area as Vegetation Association 3, Medium Forest Jarrah – Marri. The database lists the vegetation Type as 897, Medium Forest Jarrah – Marri.

NRM mapping shows the site as;

Vegetation Type 897 Type 1, Medium Forest Jarrah - Marri.

Vegetation Association 3, Medium Forest Jarrah – Marri.

NVIS Lv2, Structural formation - Open Forest.

NVIS Lv3, Floristic Formation – Eucalypt Open Forest

Shepherd et al 2002, Native Vegetation in Western Australia Extent, Type and Status, Department of Agriculture and Food Resource Management Technical Report 249 lists Vegetation Association 3 as having;

Pre-European extent of 3 046 385 hectares of which 2 197 837 hectares remains. This represents 72.1 % of the original extent.

Of the remaining vegetation 10.1% is located within IUCN Class I – IV Reserves, 67.9% is located within other Reserves and 0.0% is located within pastoral leases managed by DEC.

The vegetation meets the criteria for 30% retention criteria within reserves at 72% of vegetation remaining which indicates it is well represented and under low threat. This proposal aims to provide better protection of the vegetation within higher vegetation condition than is afforded now.

The Scheme Provisions provide for no clearing or disturbance of vegetation outside the building envelopes and for fire management purposes. Currently the vegetation is on a rural property with only the Clearing Regulations for protection.

The amount of lower quality vegetation to be taken by the development is relatively small and will not significantly impact on the Vegetation Association.

8.0 MANAGEMENT OF THE SUBDIVISION - DEVELOPMENT

8.1 Protection of Biodiversity

The development consists of 12 lots located in the north eastern corner, generally located in previously cleared or disturbed areas.

The subdivision is subject to Scheme Provisions that dictate that structures will be confined to the building envelopes, strategic fire breaks will be prepared and maintained. There will be no development within the creekline buffers and remnant vegetation outside the nominated development areas.

The Scheme Provisions are part of an existing Zone for the local area so apply to the whole zone.

The road network has been designed along fire breaks and existing tracks. The crossing of the creekline is an existing cleared track that enables connection of the eastern and western portions of the site.

Where possible the Building Protection Zone is located in cleared land that is classified as Completely Degraded or Degraded. See Figure 3. This zone will be essentially totally cleared.

The Hazard Reduction Zone has to have the bushfire fuels maintained at 4 – 6 tonnes per hectare. This does not mean total clearing but rather the thinning of trees close to each other and some thinning of the understory and ground cover. These areas are also located generally in areas of disturbed vegetation. See Figure 6 for examples of the fuel loadings.

As the vegetation will have to be thinned and not added to in the Hazard Reduction Zone, no additional planting can be recommended across the areas to be thinned.

Subject to approval relating to fire management there is scope to use strategic fire breaks rather than requiring the internal boundary firebreaks for all individual properties.

Fire Management tracks are nominated on the subdivision plan (Figure 2). These are to be installed with associated gates which will assist the protection of biodiversity by not segmenting the remnant vegetation. The Subdivision Guide Plan and associated scheme provisions achieve good connectivity of remnant vegetation.

The reduction in fuel load will have an impact on native vegetation, particularly the groundcover and smaller shrubs of areas of better vegetation. Some trees and shrubs will have to be thinned in some areas to reduce the fuel load. This will not necessarily lead to reduction in species richness of the tree and shrub layer but will result, in the controlled areas, in some reductions in plant density. The photographs of thinned vegetation in Figure 6 show that some trees and vegetation are retained.

The native ground cover will similarly be reduced in plant density. Over time any species that are prevented from reaching flowering and seeding by fuel reduction practices are likely to be disadvantaged by other species that reproduced by roots or corms. Over time the species composition could therefore change. This is most likely to occur in the 2 t/ha fuel reduction zone with less potential changes in the 4 – 6 t/ha zone and probably little change in the 4 – 8 t/ha fuel reduction zone.

Changes in species composition could also lead to some changes in fauna, with some species being advantaged over others. This is a normal consequence of land use changes. Some fauna are disadvantaged by development, but others such as bandicoots and possums and some bird species are advantaged.

The currently reduced plant species and density is not recommended to be increased by additional planting. Additional planting in areas to be managed as fuel reduction zones may bring an unacceptable fire risk and may compromise the Fire Management Plan.

There could be a potential change to the presence of kangaroos and other larger fauna. Kangaroos are present on the subject land either as permanent residents but more likely as itinerant visitors from forest areas, seeking better feed in summer.

The potential impact on kangaroos will depend on the type of fencing to be used by individual landholders, the onsite activities of those landholders and the use of the adjoining land to the east.

Smaller fauna are unlikely to be significantly impacted on, although there can be expected to be some reductions in proportion to the level of fuel reduction.

There will also be some positives from subdivision as a result of the exclusion of grazing and removal of livestock, regrowth of native vegetation outside building envelopes and bushfire hazard protection areas and better protection of the creekline vegetation.

It is suggested that the most appropriate time to reduce fuel loadings is at the time of house construction. Doing so beforehand reduces the flora prematurely. The fuel reductions could be conditioned on the Building Licence.

Dieback management practices are recommended even though there are no obvious signs of the disease. The principles are good land management. It is however recognised that there will be no control available when individual lots are sold or in the future. The only control available is the use of building envelopes and future community education programs.

Dieback and Weed Management Practices are attached.

Fences could be constructed to permit the movement of fauna. Small fauna will be unaffected, but larger fauna such as kangaroos may be able to access the vegetation through the use of kangaroo gates, the style of fencing or leaving the lower wire off a stranded fence. This can only be used for lots on which no dogs are retained.

It is recommended fencing, which is fauna friendly be provided, on lots where no dogs are to be retained. On other lots building envelopes can be fenced.

ACTIONS

- Normally a search for Priority and Threatened flora would be undertaken after the building envelopes have been located on site. However the proposed development and fire management areas were searched extensively during the flora study and this step is not necessary in this case.

8.2 Recommended Site Management

8.2.1 Fuel Reduction

Fire control is best completed at the time of construction by each individual land holder. Prior to that time the controlled fuel loading is not required on individual lots because its purpose is to provide building protection.

The Scheme Provisions preclude boundary fire breaks within the ecological corridor, and rely on fuel reduction zones, strategic fire breaks and fire management tracks with gates to provide access and control of fire.

As provided for in AS 3959, at the time of construction of the individual dwellings, some lot owners may choose to build to higher levels of fire management in the form of building design and sprinkler systems that will reduce the amount of fuel reduction required on a particular lot.

Similarly siteworks associated with the installation of fire service access will be completed by the developer prior to sale. Other site management specifically associated with dwellings will be completed by each landholder when the design and construction types required by individual lot holders are known.

The developments undertaken as part of construction of the subdivision are; site survey, preparation of perimeter and lot fire breaks and any fire hazard reduction.

On individual lots, after sale, the main types of developments are; construction of a dwelling and any associated building, preparation and construction of a driveway, maintenance of fire breaks and fuel reduction. These items are more appropriately controlled by conditions placed on development approval and building licences.

Fuel reduction is designed to reduce the understorey. The soils are left in place and the fuel loads reduced by thinning, and slashing, combined with the collection and removal of leaf litter. The soil is to be retained and the roots left in place. In normal situations the annual and perennial plants will grow in winter and be controlled in spring prior to summer.

The areas of greatest fuel reduction are immediately around dwellings in the Building Protection Zone. This zone is 20 metres wide.

Outside this, and separating dwellings on adjoining land, the fuel load is to be retained at 4 – 6 t/ha for 30 metres. The greater levels of fuel load provide greater soil and plant integrity that will be resistant to erosion. Such vegetation, even though reduced in fuel load, will continue to provide infiltration capability for sheet stormwater flow and sediment control and biodiversity, albeit at a slightly reduced level.

ACTIONS

- The fuel reduction works could either be carried out, or if the timing is not suitable be bonded and to be carried out at an appropriate time such as spring. On the other hand fuel reduction can be left to each new landholder.
- The main treatment will be;

- Removal of trees from the building envelope.
- Identifying and marking trees in the Building Protection Zone for removal – thinning.
- Identifying any tree stems that may need thinning in the hazard reduction zones.

8.2.2 Fencing

ACTIONS

- Fencing is not recommended on new lot boundaries because of the potential restriction of larger fauna.
- Boundaries which cross remnant vegetation in Good or better condition can be marked by poles to minimise the soil and vegetation disturbance.
- Pets such as dogs can be fenced in at the building envelope.
- Apart from fences to secure dogs fences are recommended to be standard wire construction with the potential for the movement of fauna including kangaroos.

8.2.3 Fire breaks

The perimeter firebreaks on site, and access tracks, are existing and have been in place for many years.

The Scheme Provisions preclude boundary fire breaks within the ecological corridor and rely on fuel reduction zones, strategic fire breaks and fire management tracks with gates to provide access and control of fire.

There will need to be additional Fire Management Tracks as outlined on the subdivision plan. Where possible these should be along already degraded and cleared areas.

ACTIONS

- All required fire service access will be installed by the developer prior to sale of lots. These can be constructed at the most appropriate time of year.
- The perimeter fire breaks will be according to the Fire Management Plan prepared by FireplanWA and will normally be 3 - 4 metres wide on the existing breaks and tracks. These will be graded in spring, taking care to construct small drainage swales into the adjoining vegetation to minimise scour and erosion.
- Strategic fire breaks and fire management tracks will be created at the time of construction of dwellings to prevent premature disturbance of vegetation.

8.2.4 Weed Management

The only specific weed management is the removal of the exotic *Acacia* spp from the north eastern corner. A program is underway by the current landholder to ensure this control occurs.

Generally all that is needed is to cut the stems prior to them seeding and then treat seedlings with broad spectrum herbicide. The *Acacias* do not generally resprout so once the stem is severed, only seedlings need to be treated.

ACTIONS

- Cut the stems of the exotic *Acacia*, monitor and treat any seedlings prior to them reaching an age at which they will flower and seed.

Weed Management Plan

The management of weeds is essentially similar to that for plant diseases. The impact of weeds is really the impact within the local area and the more they are controlled the better. It is desirable that the site does not become a haven for environmental weeds and therefore a management and control program is warranted at all sites.

Weeds can be declared under the Agriculture and Related Resources Protection Act 1976 which requires that Declared Weeds are eradicated. Other weeds are not Declared but may be classified as Environmental Weeds because they are well known for impacting on vegetation.

Generally if the actions taken for plant pathogens are applied they will also control weeds. Not all potential impacts will apply to this quarry and the main impacts affecting this site are also listed.

The vegetation condition is rated as Good across most of the site, with some areas listed as Degraded and Completely Degraded. Apart from the cleared areas the remnant vegetation is relatively weed free.

IDEAL PROCEDURES	OPERATIONAL	RECOMMENDED PROCEDURES
<ul style="list-style-type: none"> • Dieback procedures should be used 		<ul style="list-style-type: none"> • In addition to the procedures listed in these notes, the dieback management procedures should be followed.
<ul style="list-style-type: none"> • Weeds are more likely to be transported through soil movement. 		<ul style="list-style-type: none"> • Soil movement is to be discouraged disturbance is proposed to be restricted to building envelopes, access and fire breaks. • Materials recovered from land clearing should not be placed in an area of higher vegetation quality. • Weed affected top soils may need to be taken offsite and only used within existing cleared areas.
<ul style="list-style-type: none"> • All vehicles and equipment to be used during land clearing or land reinstatement are to be clean and free from soil or plant material when arriving at a site. 		<ul style="list-style-type: none"> • Construction vehicles need to be free from organic matter.
<ul style="list-style-type: none"> • No soil and vegetation is brought 		<ul style="list-style-type: none"> • This can be committed to by the developer but

to the site apart from that to be used in rehabilitation.	will be impracticable for a landholder. Future community education through normal shire and community groups is the best method of informing landholders.
<ul style="list-style-type: none"> Plants to be used in rehabilitation should be free from weeds. 	<ul style="list-style-type: none"> Plants are to be only sourced from accredited nurseries by the developer. Future community education through normal shire and community groups is the best method of informing landholders.
<ul style="list-style-type: none"> Vegetated areas ahead of excavation are quarantined to onsite access tracks. 	<ul style="list-style-type: none"> Vehicles should stay on defined access, building envelopes and firebreaks wherever possible.
<ul style="list-style-type: none"> Weeds should be sprayed with broad spectrum spray prior to planting or seeding in weed affected soils. 	<ul style="list-style-type: none"> The only area and species that are recommended to be treated are the exotic <i>Acacia</i>, which should be cut and the seedlings treated with herbicide.
<ul style="list-style-type: none"> Weed management should work from least affected areas to most affected. 	<ul style="list-style-type: none"> This is proposed.
<ul style="list-style-type: none"> Declared weeds should be treated promptly by digging out or spraying. 	<ul style="list-style-type: none"> No Declared Weeds were noted. Whilst some pasture species are present, they are not at levels or locations that are significantly impacting on the native vegetation.

8.2.5 Dieback Management

There are no obvious signs of dieback and the site appears to be dieback free. Good vegetation management procedures are recommended when constructing the subdivision to minimise any impacts on remnant vegetation.

ACTIONS

- See the Dieback Management Plan.

Dieback Management Plan

Dieback of vegetation is often attributed to Phytophthora cinamomi even though there are other Phytophthora species and other diseases such as Armillaria that can cause dieback like symptoms. Phytophthora cinamomi is restricted to the areas greater than the 600 mm rainfall isohyets (EPA 2000) and therefore is less likely to occur on site. However general plant pathogen principles also assist with weed management and will be implemented.

Dieback of vegetation is often attributed to *Phytophthora cinamomi* even though there are other *Phytophthora* species and other diseases such as *Armillaria* that can cause dieback like symptoms.

In most cases dieback is caused by a pathogen which infects the plant and causes it to lose vigour, with leaves dying, and, overtime, may kill the plant. As such the management of Dieback is essentially related to plant hygiene when coming onto a site and within a site.

Visual examination suggests that there are no obvious signs of dieback on site. There are no indicator species and no obvious species showing deaths.

The site would therefore most likely be dieback free or uninterpretable with respect to dieback and therefore a dieback survey is not warranted, but rather practices should be used which minimise the spread of weeds and plant pathogens if and when they occur.

In many ways the same principles used in weed management also apply to dieback management.

The aim will be to minimise the spread or introduction of dieback *Phytophthora* spp or other diseases during development of the subdivision.

There are several guides to the management of Dieback.

- Department of Environment and Conservation *CALM Dieback Hygiene Manual 1992 is a practical guide to Dieback management.*
- Department of Environment and Conservation *CALM Best Practice Guidelines for the Management of Phytophthora cinamomi, draft 2004.*
- Dieback Working Group 2000, *Managing Phytophthora Dieback, Guidelines for Local Government.*
- Dieback Working Group 2009, *Managing Phytophthora Dieback in Bushland.*

Controls on soil movement can be carried out by the developer prior to construction of the subdivision. However, as the developer cannot anticipate what type of dwelling or size may be required by an individual landholder, this is best left to the landholder. For example a landholder may require a pole home rather than a concrete slab on cut and fill.

During clearing for construction of the subdivision the developer should push from the best areas to the most disturbed areas and restrict traffic to the designated access road and fire breaks. Therefore remnant vegetation is effectively quarantined.

IDEAL OPERATIONAL PROCEDURES	RECOMMENDED PROCEDURES
<ul style="list-style-type: none"> Dieback diseases are more likely to be transported under moist soil conditions. 	<ul style="list-style-type: none"> Soils exposed during construction should be retained on site or placed in a more degraded area. Soil from degraded areas should not be moved to areas of better vegetation.
<ul style="list-style-type: none"> All vehicles and equipment to be used during land clearing or land reinstatement are to be clean and free from soil or plant material when arriving at a site. 	<ul style="list-style-type: none"> Construction vehicles need to be free from organic matter and soil prior to arriving on site.
<ul style="list-style-type: none"> No soil and vegetation is brought to the site apart from that to be used in rehabilitation. 	<ul style="list-style-type: none"> This can be committed to by the developer but may be impracticable for a landholder. Future community education through normal shire and community groups is the best method of informing landholders.
<ul style="list-style-type: none"> Plants to be used in rehabilitation are obtained from dieback free sources. 	<ul style="list-style-type: none"> Plants are to be only sourced from accredited nurseries by the developer. Future community education through normal shire and community groups is the best method of informing landholders.
<ul style="list-style-type: none"> Vegetated areas ahead of excavation are quarantined to onsite access tracks. 	<ul style="list-style-type: none"> Vehicles should stay on defined access, building envelopes and firebreaks wherever possible.
<ul style="list-style-type: none"> Access to vegetated areas is discouraged through a lack of tracks and external fencing. 	<ul style="list-style-type: none"> Disturbance is proposed to be restricted to building envelopes, access tracks, roads and fire breaks.
<ul style="list-style-type: none"> Rehabilitated surfaces are free draining and do not contain wet or waterlogged conditions. 	<ul style="list-style-type: none"> The only development areas are higher in the landscape and generally better draining.
<ul style="list-style-type: none"> Drainage should be prevented from entering forested areas 	<ul style="list-style-type: none"> Drainage from access roads and firebreaks is to be directed off the road/firebreak by a sequence of small drains to minimise large areas of wet soils.
<ul style="list-style-type: none"> Illegally dumped rubbish is removed promptly. 	<ul style="list-style-type: none"> Will be tidied and removed by developer prior to sale. The site is currently private land so this risk is anticipated to be minimised.
<ul style="list-style-type: none"> Construction 	<ul style="list-style-type: none"> Materials recovered from land clearing should not be placed in an area of higher vegetation quality.
<ul style="list-style-type: none"> When clearing land or firebreaks vehicles work from dieback free areas towards dieback identified or at risk areas. 	<ul style="list-style-type: none"> The fire breaks are in place and are based on those already used. The principle is to be used by the developer during preparation of the subdivision.

REFERENCES

- ANZECC, 1999, *National Framework for the Management and Monitoring of Australia's Native Vegetation*.
- ATA, 2001, *Vegetation Survey of the Albany Hinterland*, City of Albany
- Beard J S, 1979, *The Vegetation of the Albany Mt Barker Areas, Western Australia, 1 : 250 000 Vegetation Series*, Vegmap Publications Perth.
- Cavanagh T and M Pieroni, 2006, *The Dryandras*, Australian Plants Society Victoria and Wildflower Society of Western Australia.
- Collins K, K Collins and A George, 2008, *Banksias*, Bloomings Books Pty Ltd Melbourne.
- Commonwealth Environment Protection and Biodiversity Conservation Act 1999*.
- Commonwealth of Australia 2001, *The National Objectives and Targets for Biodiversity Conservation 2001 – 2005*.
- Department of Environment and Conservation, 2006, *Threatened and Priority Flora List*.
- Environmental Protection Authority (2004) Guidance Statement, *Terrestrial Flora and Vegetation Surveys for Environmental Impact Assessment in Western Australia*, No 5, 1 June 2004.
- Environmental Protection Authority, Guidance 10, *Level of assessment for proposals affecting natural areas within the System 6 region and Swan Coastal Plain portion of the System 1 Region*.
- Environmental Protection Authority, Guidance 10, *Level of assessment for proposals affecting natural areas within the System 6 region and Swan Coastal Plain portion of the System 1 Region*.
- Environmental Protection Authority, Position Statement No 2, December 2000, *Environmental Protection of Native Vegetation in Western Australia*.
- Gibson et al, 1994, *A Floristic Survey of the Southern Swan Coastal Plain*, Unpublished Report for the Australian Heritage Commission, prepared by Department of Conservation and Land Management and the Conservation Council of Western Australia.
- Government of Western Australia, 2000, *Bush Forever*.
- Kaesehagen, 1995, *Bushland Condition Mapping*, IN Invasive Weeds and Regenerating Ecosystems in Western Australia, Proceedings of Conference held at Murdoch University, July 1994, Institute for Science and Technology Policy, Murdoch University.
- Muhling P C and A T Brakel, 1985, *1 : 250 000 Geological Series, Mount Barker – Albany*, Geological Survey of Western Australia.

Scott J and P Negus, 2002, *Field Guide to the Wildflowers of Asustralia's South West*, Cape to Cape Publishing.

Surveying Western Australia's Land Edge, *Albany Goode Beach Transect*.

Wheeler et al 2002, *Flora of the South West*, Australian Biological Resources Study, UWA Press.

RARE AND SIGNIFICANT FLORA AND VEGETATION NOTES

1.0 RARE AND SIGNIFICANT FLORA AND VEGETATION

Flora can be significant on the basis of features of the taxa, its distribution and rarity. Flora as a vegetation community or complex can also be significant based on similar principles. The most commonly used determinants of significance are listed below.

A number of flora are regarded as significant even though they may not be listed as Declared Rare or Priority species. "Significant flora" and "Significant vegetation" are defined in Environmental Protection Authority (2004) Guidance Statement, Terrestrial Flora and Vegetation Surveys for Environmental Impact Assessment in Western Australia, No 51, June 2004.

Species, subspecies, varieties, hybrids and ecotypes may be significant for a range of reasons, other than as Declared Rare Flora or Priority flora, and may include the following:

- a keystone role in a particular habitat for threatened species, or supporting large populations representing a significant proportion of the local regional population of a species;*
- relic status;*
- anomalous features that indicate a potential new discovery;*
- being representative of the range of a species (particularly, at the extremes of range, recently discovered range extensions, or isolated outliers of the main range);*
- the presence of restricted subspecies, varieties, or naturally occurring hybrids;*
- local endemism/a restricted distribution;*
- being poorly reserved.*

1.1 DECLARED RARE FLORA

Species specially protected under the Wildlife Conservation Act 1950, as identified in the current listing. Normally listed within a Wildlife Conservation (Rare Flora) Notice; Schedule 1 Extant taxa.

R: Declared Rare Flora – Extant Taxa

Taxa which have been adequately searched for and are deemed to be in the wild either rare, in danger of extinction, or otherwise in need of special protection and have been gazetted as such.

X: Declared Rare Flora – Presumed Extinct Taxa

Taxa which have not been collected, or otherwise verified, over the past 50 years despite thorough searching, or of which all known wild populations have been destroyed more recently, and have been gazetted as such.

1.2 PRIORITY FLORA

Lists of plant taxa, maintained by the Department of Conservation and Land Management that are either under consideration as threatened flora but are in need of further survey to adequately determine their status, or are adequately known but require monitoring to ensure their security does not decline.

1: Priority One – Poorly known taxa

Taxa which are known from one or a few (generally <5) populations which are under threat, either due to small population size, or being on lands under immediate threat, eg road verges, urban areas, farmland, active mineral leases, etc, or the plants are under threat, eg from disease, grazing by feral animals, etc. May include taxa with threatened populations on protected lands. Such taxa are under consideration for declarations as “rare flora”, but are in urgent need of further survey.

2: Priority two – Poorly known taxa

Taxa which are known from one or a few (generally <5) populations, at which some at least are not believed to be under immediate threat (ie currently not endangered). Such taxa are under consideration for declarations as “rare flora”, but are in urgent need of further survey.

3: Priority Three – Poorly known taxa

Taxa which are known from several populations, and the taxa are not believed to be under immediate threat (ie not currently endangered), either due to the number of known populations (generally >5), or known populations being large, and either widespread or protected. Such taxa are under consideration for declarations as “rare flora”, but are in urgent need of further survey.

4: Priority Four – Poorly known taxa

Taxa which are considered to have been adequately surveyed and which, whilst being rare (in Australia), are not currently threatened by any identifiable factors. These taxa require monitoring every 5 – 10 years.

Significant Vegetation

Vegetation may be significant for a range of reasons, other than a statutory listing as Threatened Ecological Communities or because the extent is below a threshold level, and may include the following reasons:

- *scarcity;*
- *unusual species;*
- *novel combination of species;*
- *a role as a refuge;*
- *a role as a key habitat for threatened species or large populations representing a significant proportion of the local to regional total population of a species;*
- *being representative of the range of a unit (particularly, a good local and/or regional example of a unit in “prime” habitat, at the extremes of range, recently discovered range extensions, or isolated outliers of the main range);*
- *a restricted distribution.*

1.3 THREATENED ECOLOGICAL COMMUNITY

Ecological communities that have been assessed through a procedure (coordinated by CALM) and assigned to one of the following categories related to the status of the threat to the community. (EPA Guidance Statement No 51 2004).

Presumed Totally Destroyed

Critically Endangered

<10% of the pre-European extent remains in an intact condition in the bioregion.

Endangered

10 – 30% of pre-European extent remains

Vulnerable

Declining and/or has declined in distribution and/or condition, and whose ultimate security is not yet assured (it could move into a category of higher threat in the near future if threatening processes continue)

1.4 PRIORITY ECOLOGICAL COMMUNITY

Ecological communities that have been assessed through the procedures for Threatened Ecological Communities, but do not meet the criteria although still potentially at risk are assigned to one of the following categories related to the status of the threat to the community. (Definitions and Criteria for Priority Ecological Communities, DEC and CALM Policy Statement No 9).

Priority One

Poorly known ecological communities that are very restricted and not actively managed for conservation.

Priority Two

Poorly known ecological communities that are restricted and mostly actively managed for conservation

Priority Three

Poorly known ecological communities that are of more widespread occurrence, which may not be well reserved or subject to disturbance pressures or significant communities that are not under threat.

Priority Four

Communities that are adequately known, but rare and not threatened, or are near the status of Threatened. They are divided into Rare, Near Threatened or communities removed from the Threatened List.

Priority Five

Communities that are not threatened, but are dependent on conservation for their survival.

1.5 COMMONWEALTH LEGISLATION

Some vegetation communities or plant taxa that are very rare or of National importance are listed under the Commonwealth Environment Protection and Biodiversity Conservation Act 1999.

Databases held under the Commonwealth Environment Protection and Biodiversity Conservation Act 1999 can be searched.

1.6 REPRESENTATION OF VEGETATION COMMUNITIES

The significance of the flora depends on a number of issues.

- *Rare, Priority or Significant species may be present.*
- *A Threatened Ecological Community may be present.*
- *The development may take the area of the particularly vegetation community or complex below desirable levels or guidelines.*
- *There may be an aspect of the flora that may be listed under the Commonwealth Environment Protection and Biodiversity Conservation Act 1999.*

EPA Position Statement No 2, December 2000, Environmental Protection of Native Vegetation in Western Australia, specifically targets the retention of native vegetation in the Agricultural Areas in 4.1, Clearing in the agricultural areas for agricultural purposes. In 4.3, Clearing in other areas of Western Australia, it is unclear what "other areas" refers to, but may refer to retention of a 30% threshold in non agricultural areas.

Section 4.3 Clearing in other areas of Western Australia, (EPA Position Statement No 2, December 2000) expects that clearing will not take vegetation types below the 30% of the pre-clearing vegetation as recommended by ANZECC, 1999, National Framework for the Management and Monitoring of Australia's Native Vegetation. The National Objectives and Targets for Biodiversity Conservation 2001 - 2005 (Commonwealth of Australia 2001) also recognise 30% as the trigger value.

For the Perth Metropolitan Area and the Greater Bunbury Area the minimum retention figure is 10%.

VEGETATION CONDITION NOTES

The vegetation condition mapping used is that used by the Department of Environment and Conservation and is taken from *Bush Forever 2000*.

Vegetation Condition Scale reproduced from page 48 (*Bush Forever 2000*).

Condition Score	Vegetation Condition	Vegetation Descriptors
1	Pristine	<i>Pristine or nearly so, no obvious signs of disturbance</i>
2	Excellent	<i>Vegetation structure intact, disturbance affecting individual species, and weeds are non aggressive species.</i>
3	Very Good	<i>Vegetation structure altered, obvious signs of disturbance. For example disturbance to vegetation structure caused by repeated fires, the presence of some more aggressive weeds, dieback, logging and grazing.</i>
4	Good	<i>Vegetation structure significantly altered by very obvious signs of multiple disturbance. Retains basic structure or ability to regenerate it. For example, disturbance to vegetation structure caused by very frequent fires, the presence of some very aggressive weeds at high density, partial clearing, dieback and grazing.</i>
5	Degraded	<i>Basic structure of the vegetation severely impacted on by disturbance. Scope for regeneration but not to a state approaching good condition without intensive management. For example disturbance to vegetation structure caused by very frequent fires, the presence of very aggressive weeds, partial clearing, dieback and grazing.</i>
6	Completely Degraded	<i>The structure of the vegetation is no longer intact and the area is completely or almost completely without native species. These areas are often described as "parkland cleared" with the flora comprising weed or crop species with isolated native trees or shrubs.</i>

This condition scale uses a scale that can distort the public perception of middle vegetation condition when compared to previous vegetation studies. In previous studies the word "Good" would have been a lower classification such as "Poor" as shown in *Bush Forever 2000*, page 48. The scale Good also does not seem to match the vegetation description provided on page 48. The *Bush Forever 2000* Condition Score is possibly better related to the potential for regeneration of remnant vegetation rather than being a descriptor of its current condition. See Attachment 2.

Another approach is to use the number of remaining species as an indicator of vegetation condition. This provides for a less subjective assessment of the vegetation condition. Kaesehagen, 1995, *Bushland Condition Mapping*, IN *Invasive Weeds and Regenerating Ecosystems in Western Australia*, Proceedings of Conference held at Murdoch University, July 1994, Institute for Science and Technology Policy, Murdoch University, 1995, A copy of the Kaesehagen 1995 vegetation condition table is shown below.

Descriptor	Percentage of species remaining	Comments
Very Good - Excellent	80 – 100%	<ul style="list-style-type: none"> • <i>Vegetation structure intact or nearly so.</i> • <i>Cover / abundance of weeds less than 5%.</i> • <i>No or minimal signs of disturbance.</i>
Fair - Good	50 – 80%	<ul style="list-style-type: none"> • <i>Vegetation structure modified.</i> • <i>Cover / abundance of weed 5 – 20%, any number of individuals.</i> • <i>Minor signs of disturbance</i>
Poor	20 – 50%	<ul style="list-style-type: none"> • <i>Vegetation structure completely modified.</i> • <i>Cover / abundance of weeds 20 – 60% any number of individuals.</i> • <i>Disturbance incidence high</i>
Very Poor	0 – 20%	<ul style="list-style-type: none"> • <i>Vegetation structure disappeared.</i> • <i>Cover / abundance of weeds 60 – 100% cover, any number of individuals.</i> • <i>Disturbance incidence very high.</i>

CLEARING PRINCIPLES

Clearing is controlled under the *Environmental Protection (Clearing of Native Vegetation) Regulations 2004*. These regulations provide for a number of principles against which clearing is assessed.

	CLEARING PRINCIPLE <i>(Schedule 5 Environmental Protection Amendment Act, 1986)</i>
1a	<i>High Level of diversity</i>
1b	<i>Significant fauna habitat</i>
1c	<i>Necessary to existence of Rare flora</i>
1d	<i>Threatened Ecological Community</i>
1e	<i>Significant area of vegetation in an area that has been extensively cleared</i>
1f	<i>Wetland or watercourse</i>
1g	<i>Land degradation</i>
1h	<i>Impact on adjacent or nearby conservation areas</i>
1i	<i>Deterioration of underground water</i>
1j	<i>Increase flooding</i>

The *Environmental Protection (Clearing of Native Vegetation) Regulations 2004* also provide for planning and other policies and issues to be taken into account when determining clearing applications.

Section 51O of the *Environmental Protection Act 1986* allows the CEO to take planning matters into account when making clearing decisions, such as a State Planning Policy. There is an agreement between DEC and DMP permitting DMP to issue Clearing Permits.

As well as considering Biodiversity and other conservation issues the Clearing Principles that have to be satisfied are apparently designed for rural regions and do not adequately address the issues of resource needs. Therefore some additional principles need to be added when considering the need for essential Raw Materials. In an attempt to provide a better balance to the clearing principles those principles have been expanded as listed in the tables below.

	ADDITIONAL CLEARING PRINCIPLES – EXTRACTIVE INDUSTRIES
Environmental Protection Act 1984 Section 51O Planning Matters	
1	<i>Planning Matters</i>
Environmental Protection Act 1984 Section 51O Relevant Matters	
2a	<i>Need for the resource</i>
2b	<i>Classification of the resource and existing approvals</i>
2c	<i>Availability of alternative resources and the impact of their use</i>
2d	<i>Proposed final land use</i>
2e	<i>Offsite Environmental impacts if the resource is not used</i>
2f	<i>Sound environmental management and rehabilitation</i>

LOT 4853 MOUNT BARKER – PORONGURUP ROAD, PORONGURUP

VEGETATION COMMUNITIES

Landform Research April 2011
 Basemap LANDGATE Scale 1 : 3 000 at A3

Vegetation Communities

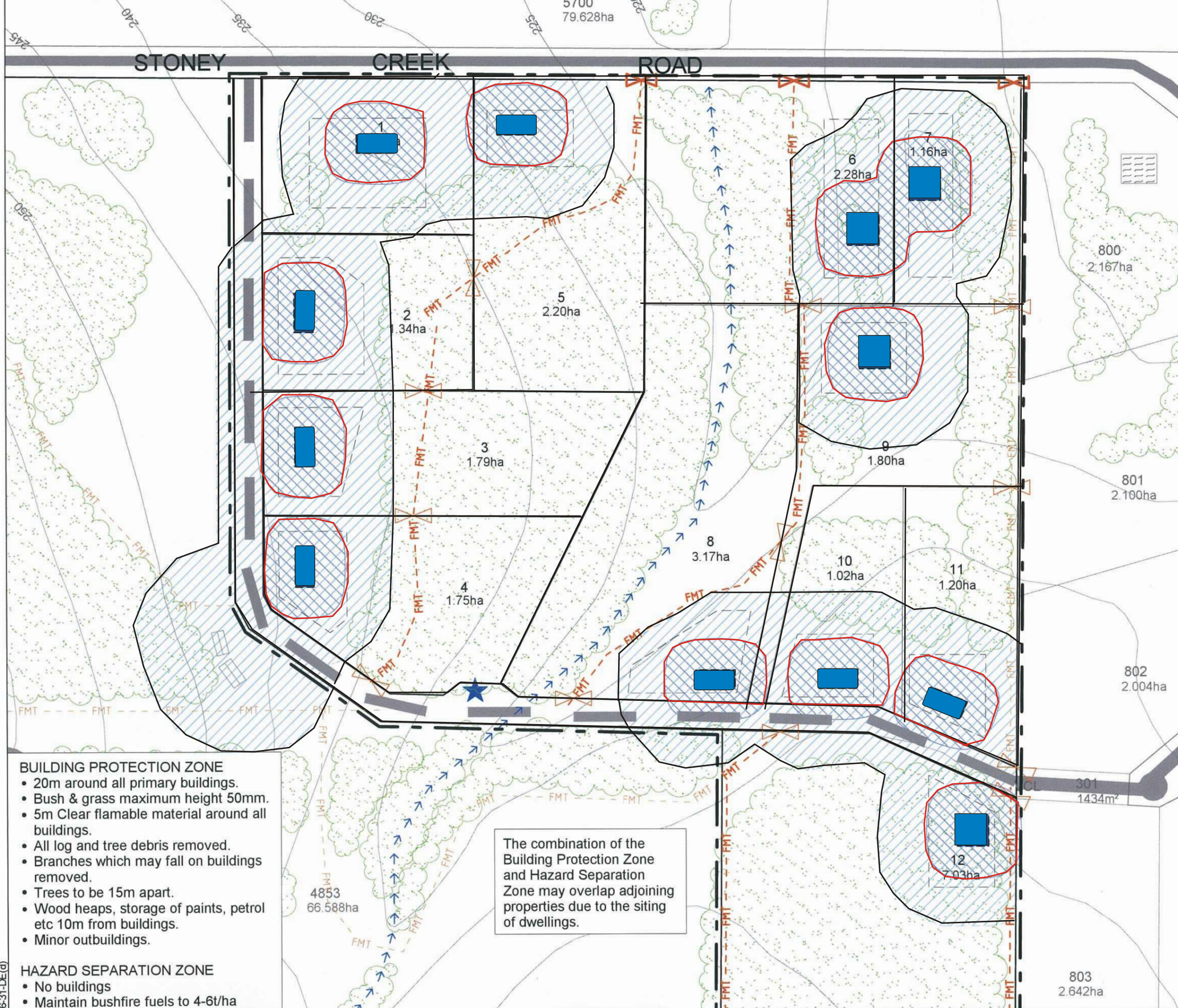
Subarea	Vegetation Condition
Jarrah – Marri Medium Forest	
W	Jarrah Marri Medium Forest on laterite slopes
H	Jarrah – Marri Medium Forest on coarse sand and over loam subsoils.
M	Jarrah – Marri Medium Forest on sandy soils that has previously been subjected to some grazing and is generally in very good condition.
WE	Jarrah – Marri Medium Forest on Laterite gravel ridge and sandy loam soils that has been cleared or heavily grazed.
WSE	Jarrah – Marri Medium Forest on Laterite gravel ridge in very good to excellent condition
Riverine Vegetation	
WET	Wet site vegetation that is partially regrowth and remnant, dominated by <i>Eutaxia virgata</i> .
Taxandria Regrowth	
TA	Regrowth of <i>Taxandria</i> spp on old pasture land.

Dwelling
 Building protection zone
 Hazard separation zone



Figure 1

ALL AREAS AND DIMENSIONS ARE SUBJECT TO SURVEY



DEVELOPMENT ENVELOPE & BUILDING PROTECTION ZONE

Pt. Lot 4853 Porongurup Road
Porongurup, Shire of Plantagenet

LEGEND

- Subject Land
- Existing Trees
- Existing Buildings
- Existing Lot Boundaries
- Proposed Lot Boundaries
- Existing Roads / Tracks
- Proposed Road
- Drainage Line
- Existing Fire Management Track
- Proposed Fire Management Track
- Unlocked Fire Gate Required
- Unlocked Fire Gate (to be provided if fence is erected)
- Indicative House Site
- Building Protection Zone
- Hazard Separation Zone
- Development Envelope

ORIG A3
SCALE 1:2500

0 20 40

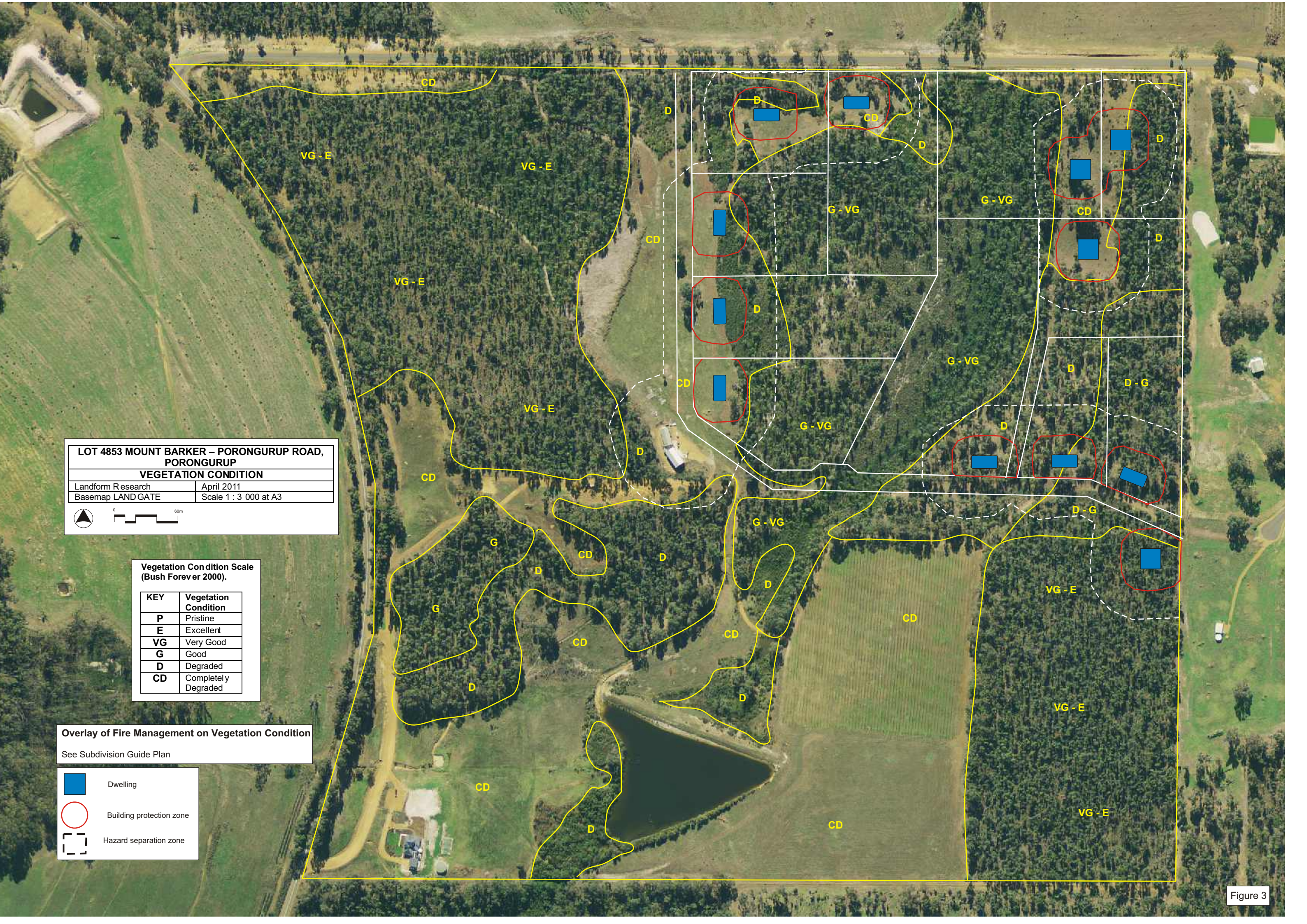
- BUILDING PROTECTION ZONE**
- 20m around all primary buildings.
 - Bush & grass maximum height 50mm.
 - 5m Clear flammable material around all buildings.
 - All log and tree debris removed.
 - Branches which may fall on buildings removed.
 - Trees to be 15m apart.
 - Wood heaps, storage of paints, petrol etc 10m from buildings.
 - Minor outbuildings.
- HAZARD SEPARATION ZONE**
- No buildings
 - Maintain bushfire fuels to 4-6t/ha

The combination of the Building Protection Zone and Hazard Separation Zone may overlap adjoining properties due to the siting of dwellings.

AYTON BAESJOU
PLANNING



11 Duke Street
Albany WA 6330
Ph 9842 2304 Fax 9842 8494

Figure 2



LOT 4853 MOUNT BARKER – PORONGURUP ROAD, PORONGURUP
VEGETATION CONDITION

Landform Research	April 2011
Basemap LAND GATE	Scale 1 : 3 000 at A3

Vegetation Condition Scale (Bush Forever 2000).

KEY	Vegetation Condition
P	Pristine
E	Excellent
VG	Very Good
G	Good
D	Degraded
CD	Completely Degraded

Overlay of Fire Management on Vegetation Condition
 See Subdivision Guide Plan

	Dwelling
	Building protection zone
	Hazard separation zone

Figure 3



Cleared land in the central west with Bracken (*Pteridium esculentum*) regrowth



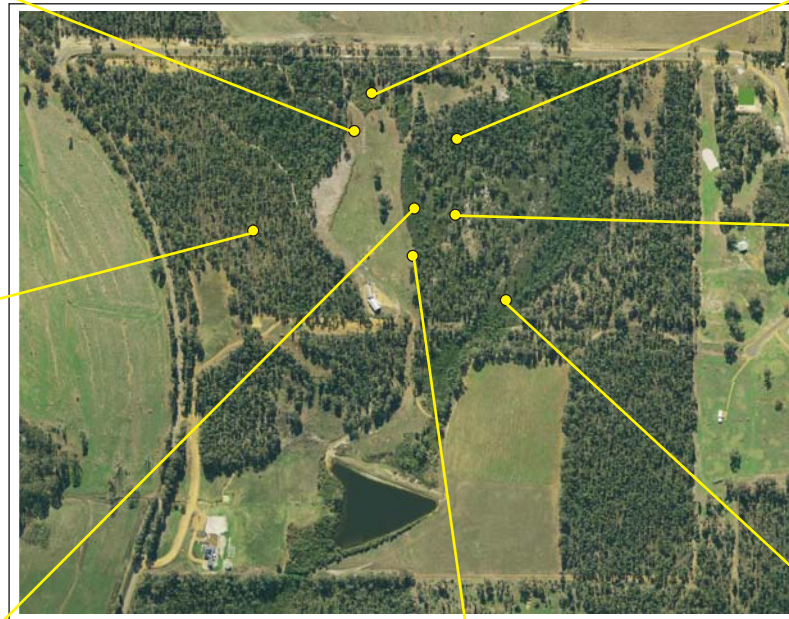
Previously cleared/grazed Jarrah Marri Medium Forest in central north.



Previously cleared/grazed Jarrah Marri Medium Forest in central north.



Jarrah - Marri Medium Forest in the north western corner outside the developments



LOT 4853, PORONGURUP ROAD, PORONGURUP



Previously cleared/grazed Jarrah Marri Medium Forest in central north.



Taxandria regrowth on previously cleared land



Edge of *Taxandria* regrowth encroaching from the edge of forest.



Wet site vegetation, dominated by *Eutaxia virgata* outside the development area



Previously cleared land where building envelopes are to be located.



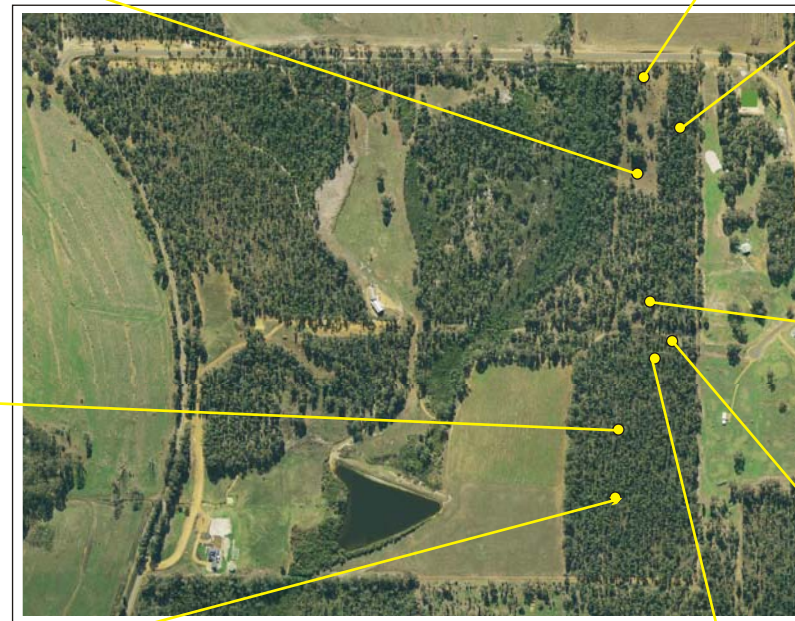
Previously cleared - grazed land where building envelopes are to be located.



Previously cleared - grazed land where building envelopes are to be located.



Jarrah - Marri Medium Forest in excellent condition, outside the development



LOT 4853, PORONGURUP ROAD, PORONGURUP



Previously cleared land with exotic Acacias that are being controlled



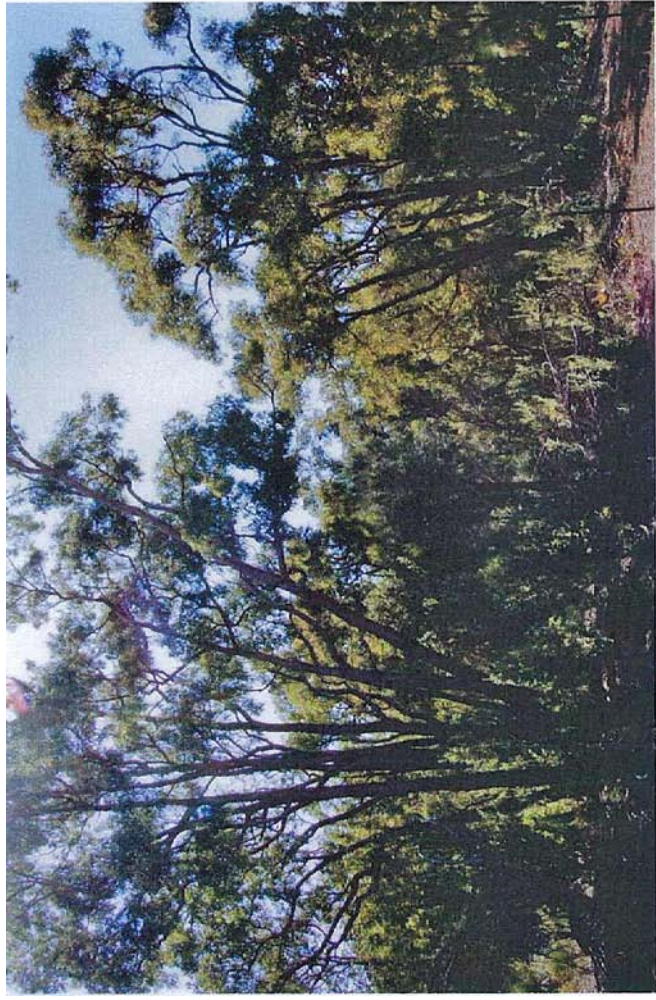
Jarrah - Marri Medium Forest in excellent condition, outside the development



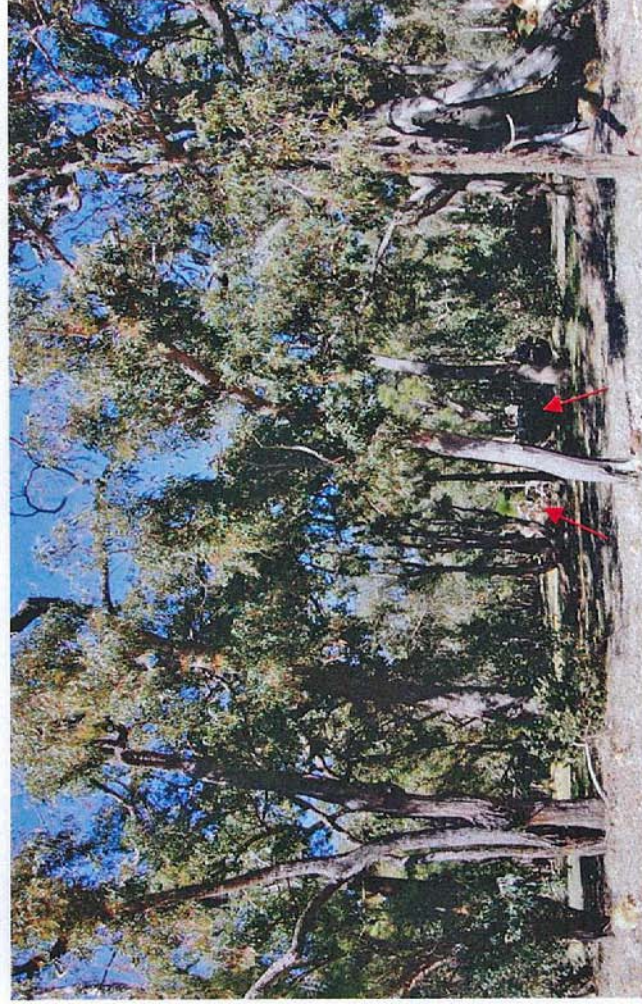
Jarrah - Marri Medium, Forest in lesser condition in location of building envelope



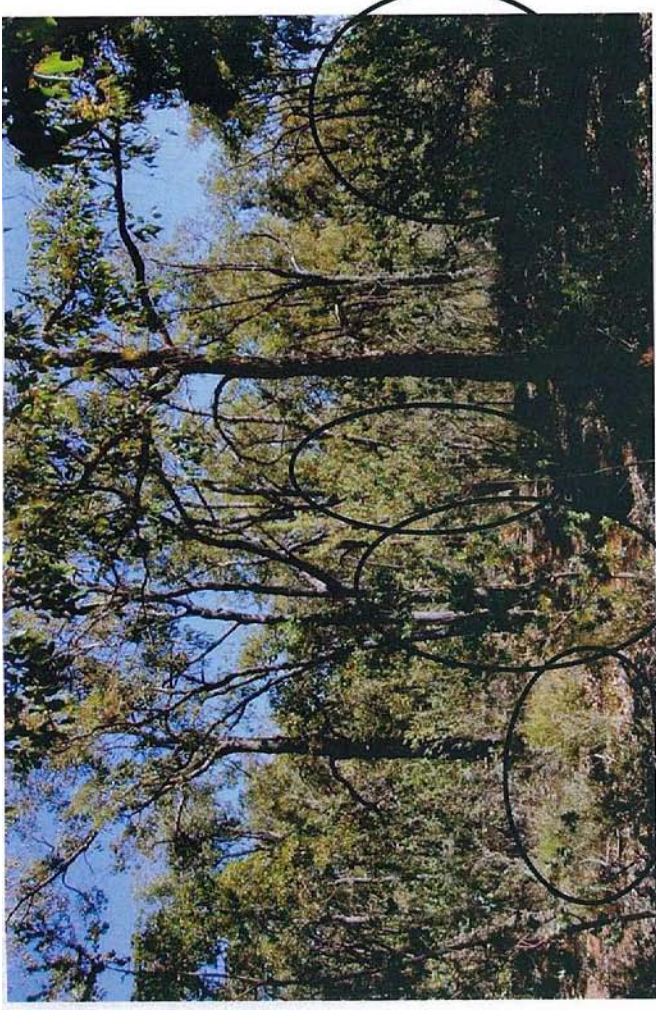
Previously cleared land where building envelopes are to be located.



Suitable for a Hazard Separation Zone Some understorey removal e.g. Dryandra. Ground fuels to comply with 4-6 tonnes/ha. No thinning of trees required.



Compliant as a BPZ –trash pile in background is to be removed and ground fuels to be maintained to 2tonnes/ha.

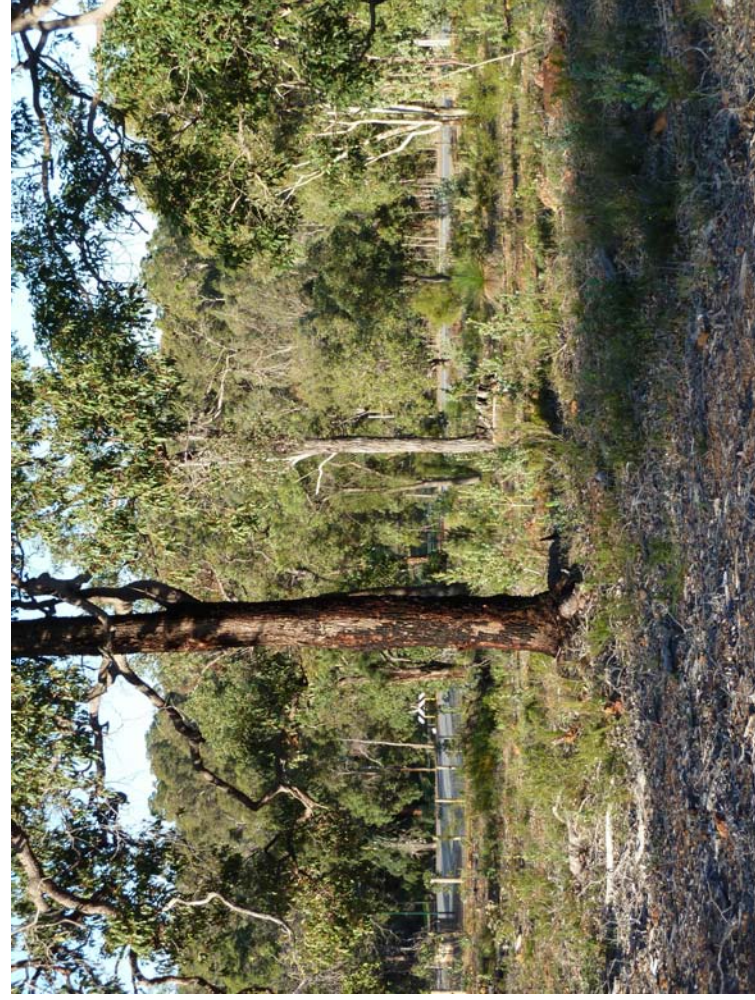


Overstorey compliant. Understorey would require some selective removal of dryandra, as indicated in black circles. "Good" Condition Vegetation. (GPS point 028) If site was to be hazard separation zone –ground fuels to be maintained to 4-6 tonnes/ha. If site was to be building protection zone all Dryandra species to be remove ground fuels to be maintained to 2tonnes/ha.



Understorey and middle storey are compliant. Overstorey would require selective removal of thin stemmed trees as indicated by red rectangles to achieve building protection zone. In building protection zone ground fuels to be maintained to 2 tonnes/ha

Fire Management examples supplied by FirePlan WA



Examples of Hazard Fuel Reduction zones with 4 - 6 tonnes /ha in Canns Road, Bedfordale, Perth

NatureMap Species Report

Created By Lindsay Stephens on 14/02/2012

Current Names Only Yes
 Core Datasets Only Yes
 Data Source WA Herbarium Specimen Database
 Method 'By Circle'
 Centre 117°54' 48" E, 34°39' 08" S
 Buffer 5km
 Group By Kingdom

Kingdom	Species	Records
Fungi	7	8
Plantae	341	524
TOTAL	348	532

Name ID	Species Name	Naturalised	Conservation Code	Endemic To Query Area
Fungi				
1.	38764 <i>Austropaxillus muelleri</i>			
2.	27665 <i>Cladia ferdinandii</i>			
3.	38785 <i>Descomyces angustisporus</i>			
4.	27745 <i>Flavoparmelia haysomii</i>			
5.	38829 <i>Psathyrella echinata</i>			
6.	27997 <i>Pseudocyphellaria neglecta</i>			
7.	28085 <i>Usnea confusa</i>			
Plantae				
8.	3235 <i>Acacia baxteri</i> (Baxter's Wattle)			
9.	3239 <i>Acacia biflora</i>			
10.	3247 <i>Acacia browniana</i>			
11.	11731 <i>Acacia browniana</i> var. <i>browniana</i>			
12.	17858 <i>Acacia dealbata</i>	Y		
13.	3331 <i>Acacia extensa</i> (Wiry Wattle)			
14.	3413 <i>Acacia leioderma</i>			
15.	3453 <i>Acacia myrtifolia</i>			
16.	15483 <i>Acacia pulchella</i> var. <i>pulchella</i>			
17.	3582 <i>Acacia triptycha</i>			
18.	10824 <i>Acidonia microcarpa</i>			
19.	5315 <i>Actinodium cunninghamii</i> (Albany Daisy)			
20.	1773 <i>Adenanthos cuneatus</i> (Coastal Jugflower)			
21.	1791 <i>Adenanthos obovatus</i> (Basket Flower)			
22.	25 <i>Adiantum aethiopicum</i> (Common Maidenhair)			
23.	19789 <i>Agonis theiformis</i>			
24.	23474 <i>Agrostocrinum hirsutum</i>			
25.	185 <i>Aira cupaniana</i> (Silvery Hairgrass)	Y		
26.	1732 <i>Allocasuarina humilis</i> (Dwarf Sheoak)			
27.	194 <i>Amphipogon amphipogonoides</i>			
28.	197 <i>Amphipogon debilis</i>			
29.	199 <i>Amphipogon strictus</i> (Greybeard Grass)			
30.	1062 <i>Anarthria prolifera</i>			
31.	25844 <i>Andersonia caerulea</i> subsp. <i>caerulea</i>			
32.	6321 <i>Andersonia spregeloides</i>			
33.	11931 <i>Anigozanthos bicolor</i> subsp. <i>decrescens</i>			
34.	7411 <i>Anthotium humile</i> (Dwarf Anthotium)			
35.	13614 <i>Apium prostratum</i> subsp. <i>phillipii</i>		T	
36.	62 <i>Asplenium flabellifolium</i> (Necklace Fern)			
37.	20127 <i>Astartea glomerulosa</i>			
38.	20130 <i>Astartea laricifolia</i>			
39.	20131 <i>Astartea</i> sp. southern ranges (T.E.H. Aplin 2108)			
40.	6323 <i>Astroloma ciliatum</i> (Candle Cranberry)			
41.	6326 <i>Astroloma epacridis</i>			

Name ID	Species Name	Naturalised	Conservation Code	¹ Endemic To Query Area
42.	6334 <i>Astroloma pallidum</i> (Kick Bush)			
43.	17240 <i>Austrostipa flavescens</i>			
44.	32684 <i>Banksia arctotidis</i>			
45.	32577 <i>Banksia dallanneyi</i> var. <i>mellicula</i>			
46.	32525 <i>Banksia formosa</i> (Showy Dryandra)			
47.	1817 <i>Banksia gardneri</i> (Prostrate Banksia)			
48.	1819 <i>Banksia grandis</i> (Bull Banksia)			
49.	1822 <i>Banksia ilicifolia</i> (Holly-leaved Banksia)			
50.	32208 <i>Banksia mucronulata</i> subsp. <i>mucronulata</i>			
51.	32202 <i>Banksia nivea</i> (Honeydot Dryandra)			
52.	32203 <i>Banksia nivea</i> subsp. <i>nivea</i>			
53.	32164 <i>Banksia pellaëifolia</i>			
54.	32085 <i>Banksia seneciifolia</i>		P3	
55.	32080 <i>Banksia sessilis</i> var. <i>sessilis</i>			
56.	32036 <i>Banksia tenuis</i> var. <i>tenuis</i>			
57.	32315 <i>Barbula calycina</i>			
58.	32459 <i>Bartramia hampeana</i> subsp. <i>hampei</i>			
59.	15037 <i>Bartsia trixago</i>	Y		
60.	5376 <i>Beaufortia anisandra</i>			
61.	5383 <i>Beaufortia empetrifolia</i>			
62.	25787 <i>Billardiera drummondii</i>			
63.	3157 <i>Billardiera floribunda</i> (White-flowered Billardiera)			
64.	25798 <i>Billardiera fusiformis</i> (Australian Bluebell)			
65.	3159 <i>Billardiera laxiflora</i>			
66.	3165 <i>Billardiera variifolia</i>			
67.	4411 <i>Boronia crassifolia</i>			
68.	4413 <i>Boronia crenulata</i> (Aniseed Boronia)			
69.	11503 <i>Boronia crenulata</i> var. <i>crenulata</i>			
70.	4441 <i>Boronia spathulata</i> (Boronia)			
71.	4446 <i>Boronia tetrandra</i> (Yellow Boronia)			
72.	3713 <i>Bossiaea linophylla</i>			
73.	3714 <i>Bossiaea ornata</i> (Broad Leaved Brown Pea)			
74.	32327 <i>Breutelia affinis</i>			
75.	1385 <i>Burchardia multiflora</i> (Dwarf Burchardia)			
76.	1276 <i>Caesia micrantha</i> (Pale Grass-lily)			
77.	1277 <i>Caesia occidentalis</i>			
78.	1604 <i>Caladenia macrostylis</i> (Leaping Spider Orchid)			
79.	1610 <i>Caladenia plicata</i> (Crab-lipped Spider Orchid)			
80.	2846 <i>Calandrinia calytrata</i> (Pink Purslane)			
81.	19306 <i>Calectasia grandiflora</i> subsp. <i>southern</i> (H. Demarz 546)			
82.	35816 <i>Calothamnus quadrifidus</i> subsp. <i>quadrifidus</i>			
83.	5458 <i>Calytrix flavescens</i> (Summer Starflower)			
84.	5465 <i>Calytrix leschenaultii</i>			
85.	32334 <i>Campylopus australis</i>			
86.	2951 <i>Cassytha flava</i> (Dodder Laurel)			
87.	2957 <i>Cassytha racemosa</i> (Dodder Laurel)			
88.	1123 <i>Centrolepis caespitosa</i>		P4	
89.	11299 <i>Chamaescilla corymbosa</i> var. <i>corymbosa</i>			
90.	5492 <i>Chamelaucium confertiflorum</i>			
91.	8971 <i>Chorizema cordatum</i>			
92.	3754 <i>Chorizema diversifolium</i>			
93.	12765 <i>Chorizema nanum</i>			
94.	3761 <i>Chorizema rhombeum</i>			
95.	2929 <i>Clematis pubescens</i> (Common Clematis)			
96.	4551 <i>Comesperma ciliatum</i>			
97.	4564 <i>Comesperma virgatum</i> (Milkwort)			
98.	1885 <i>Conospermum triplinervium</i> (Tree Smokebush)			
99.	1454 <i>Conostylis setigera</i> (Bristly Cottonhead)			
100.	11597 <i>Conostylis setigera</i> subsp. <i>setigera</i>			
101.	12945 <i>Corybas recurvus</i>			
102.	17104 <i>Corymbia calophylla</i> (Marri)			
103.	18320 <i>Cotoneaster pannosus</i>	Y		
104.	16195 <i>Cryptandra wilsonii</i>			
105.	1627 <i>Cryptostylis ovata</i> (Slipper Orchid)			
106.	15404 <i>Cyanicula sericea</i>			
107.	7420 <i>Dampiera alata</i> (Winged-stem Dampiera)			
108.	7452 <i>Dampiera leptoclada</i> (Slender-shooted Dampiera)			
109.	7454 <i>Dampiera linearis</i> (Common Dampiera)			
110.	5508 <i>Darwinia citriodora</i> (Lemon-scented Darwinia)			
111.	5533 <i>Darwinia vestita</i> (Pom-pom Darwinia)			

Name ID	Species Name	Naturalised	Conservation Code	¹ Endemic To Query Area
112.	1218 <i>Dasypogon bromeliifolius</i> (Pineapple Bush)			
113.	3799 <i>Daviesia cordata</i> (Bookleaf)			
114.	3811 <i>Daviesia flexuosa</i>			
115.	3835 <i>Daviesia preissii</i>			
116.	16593 <i>Desmocladius biformis</i>		P3	
117.	17691 <i>Desmocladius fasciculatus</i>			
118.	299 <i>Deyeuxia quadriseta</i> (Reed Bentgrass)			
119.	306 <i>Dichelachne crinita</i> (Longhair Plumegrass)			
120.	32344 <i>Dicranoloma diaphanoneuron</i>			
121.	12944 <i>Diuris amplissima</i>			
122.	11049 <i>Diuris corymbosa</i>			
123.	13634 <i>Drakaea confluens</i>		T	
124.	15709 <i>Drosera androsacea</i> (Cone Sundew)			
125.	13218 <i>Drosera erythrogyne</i>			
126.	11853 <i>Drosera menziesii</i> subsp. <i>menziesii</i>			
127.	3118 <i>Drosera pallida</i> (Pale Rainbow)			
128.	3123 <i>Drosera platystigma</i> (Black-eyed Sundew)			
129.	29191 <i>Drosera purpurascens</i>			
130.	13537 <i>Eucalyptus decipiens</i> subsp. <i>adesmophloia</i>			
131.	13538 <i>Eucalyptus decipiens</i> subsp. <i>chalara</i>			
132.	5625 <i>Eucalyptus diversicolor</i> (Karri)			
133.	13547 <i>Eucalyptus marginata</i> subsp. <i>marginata</i> (Jarrah)			
134.	12875 <i>Eucalyptus medialis</i>			
135.	5723 <i>Eucalyptus occidentalis</i> (Flat-topped Yate)			
136.	16180 <i>Eucalyptus pleurocarpa</i>			
137.	19655 <i>Eucalyptus thamnoides</i> subsp. <i>megista</i>			
138.	20214 <i>Eutaxia myrtifolia</i>			
139.	3879 <i>Eutaxia parvifolia</i>			
140.	1944 <i>Franklandia fucifolia</i> (Lanoline Bush)			
141.	3893 <i>Gastrolobium brownii</i>			
142.	20507 <i>Gastrolobium subcordatum</i>		P4	
143.	3932 <i>Gastrolobium velutinum</i> (Stirling Range Poison)			
144.	32379 <i>Gemmabryum inaequale</i>			
145.	4341 <i>Geranium solanderi</i> (Native Geranium)			
146.	3950 <i>Gompholobium knightianum</i>			
147.	3953 <i>Gompholobium ovatum</i>			
148.	3954 <i>Gompholobium polymorphum</i>			
149.	7517 <i>Goodenia incana</i> (Hoary Goodenia)			
150.	14282 <i>Grotiola pubescens</i>			
151.	1987 <i>Grevillea depauperata</i>			
152.	2005 <i>Grevillea fasciculata</i>			
153.	15991 <i>Grevillea pulchella</i> subsp. <i>pulchella</i>			
154.	2112 <i>Grevillea trifida</i>			
155.	32473 <i>Grimmia pulvinata</i> var. <i>africana</i>			
156.	1474 <i>Haemodorum sparsiflorum</i>			
157.	2128 <i>Hakea amplexicaulis</i> (Prickly Hakea)			
158.	2150 <i>Hakea cucullata</i> (Hood Leaved Hakea)			
159.	2159 <i>Hakea falcata</i>			
160.	2162 <i>Hakea florida</i>			
161.	12229 <i>Hakea lasiocarpa</i>		P3	
162.	2179 <i>Hakea marginata</i>			
163.	2190 <i>Hakea oldfieldii</i>		P3	
164.	16909 <i>Hakea pandanicarpa</i> subsp. <i>crassifolia</i>			
165.	2206 <i>Hakea stenocarpa</i> (Narrow-fruited Hakea)			
166.	2214 <i>Hakea trifurcata</i> (Two-leaf Hakea)			
167.	16640 <i>Hakea tuberculata</i>			
168.	2215 <i>Hakea undulata</i> (Wavy-leaved Hakea)			
169.	3961 <i>Hardenbergia comptoniana</i> (Native Wisteria)			
170.	32391 <i>Hedwigia ciliata</i>			
171.	32392 <i>Hedwigidium integrifolium</i>			
172.	6856 <i>Hemigenia incana</i> (Silky Hemigenia)			
173.	5109 <i>Hibbertia amplexicaulis</i>			
174.	5114 <i>Hibbertia commutata</i>			
175.	5118 <i>Hibbertia cunninghamii</i>			
176.	5131 <i>Hibbertia gracilipes</i>			
177.	5144 <i>Hibbertia microphylla</i>			
178.	19445 <i>Hibbertia porongurupensis</i>		P4	
179.	5169 <i>Hibbertia serrata</i> (Serrate Leaved Guinea Flower)			
180.	3964 <i>Hovea chorizemifolia</i> (Holly-leaved Hovea)			
181.	3965 <i>Hovea elliptica</i> (Tree Hovea)			

Name ID	Species Name	Naturalised	Conservation Code	Endemic To Query Area
182.	6231 <i>Hydrocotyle hirta</i> (Hairy Pennywort)			
183.	32474 <i>Hypnum cupressiforme</i> var. <i>cupressiforme</i>			Y
184.	32475 <i>Hypnum cupressiforme</i> var. <i>filiforme</i>			
185.	32476 <i>Hypnum cupressiforme</i> var. <i>lacunosum</i>			
186.	13105 <i>Hypocalymma asperum</i>			
187.	5827 <i>Hypocalymma strictum</i>			
188.	9352 <i>Hypochaeris radicata</i> (Flat Weed)	Y		
189.	912 <i>Isolepis cyperoides</i>			
190.	916 <i>Isolepis inundata</i> (Swamp Club Rush)			
191.	2222 <i>Isopogon attenuatus</i>			
192.	16719 <i>Isopogon buxifolius</i> var. <i>obovatus</i>			
193.	2230 <i>Isopogon formosus</i> (Rose Coneflower)			
194.	16880 <i>Isopogon formosus</i> subsp. <i>formosus</i>			
195.	7396 <i>Isotoma hypocrateriformis</i> (Woodbridge Poison)			
196.	4012 <i>Jacksonia furcellata</i> (Grey Stinkwood)			
197.	4028 <i>Jacksonia spinosa</i>			
198.	1295 <i>Johnsonia acaulis</i>			
199.	1299 <i>Johnsonia teretifolia</i> (Hooded Lily)			
200.	4037 <i>Kennedia coccinea</i> (Coral Vine)			
201.	37961 <i>Kennedia coccinea</i> subsp. <i>esotera</i>			
202.	4044 <i>Kennedia prostrata</i> (Scarlet Runner)			
203.	17508 <i>Kunzea micrantha</i> subsp. <i>oligandra</i>			
204.	5839 <i>Kunzea preissiana</i>			
205.	5841 <i>Kunzea recurva</i>			
206.	19955 <i>Lachnagrostis plebeia</i>			
207.	18585 <i>Lagenophora huegelii</i>			
208.	7575 <i>Lechenaultia formosa</i> (Red Leschenaultia)			
209.	33024 <i>Lepidosperma</i> sp. Saltbush Hill (K.R. Newbey 4118)			
210.	1082 <i>Leptocarpus tenax</i> (Slender Twine Rush)			
211.	2347 <i>Leptomeria lehmannii</i>			
212.	1089 <i>Lepyrodia monoica</i>			
213.	6358 <i>Leucopogon assimilis</i>			
214.	6360 <i>Leucopogon australis</i> (Spiked Beard-heath)			
215.	6367 <i>Leucopogon capitellatus</i>			
216.	6384 <i>Leucopogon cymbiformis</i>		P2	
217.	6394 <i>Leucopogon gibbosus</i>			
218.	6397 <i>Leucopogon glaucifolius</i>			
219.	33380 <i>Leucopogon interstans</i>			
220.	6423 <i>Leucopogon oppositifolius</i>			
221.	6428 <i>Leucopogon pendulus</i>			
222.	6436 <i>Leucopogon propinquus</i>			
223.	6441 <i>Leucopogon reflexus</i>			
224.	9217 <i>Leucopogon revolutus</i>			
225.	10755 <i>Leucopogon rubricaulis</i>			
226.	28311 <i>Leucopogon</i> sp. Great Southern (R.S. Cowan A 586)			
227.	6454 <i>Leucopogon verticillatus</i> (Tassel Flower)			
228.	7670 <i>Levenhookia dubia</i> (Hairy Stylewort)			
229.	7673 <i>Levenhookia pauciflora</i> (Deceptive Stylewort)			
230.	7405 <i>Lobelia ranifolia</i>			
231.	6511 <i>Logania serpyllifolia</i>			
232.	14551 <i>Logania serpyllifolia</i> subsp. <i>serpyllifolia</i>			
233.	1224 <i>Lomandra collina</i> (Pale Mat Rush)			
234.	14542 <i>Lomandra micrantha</i> subsp. <i>micrantha</i>			
235.	1092 <i>Loxocarya cinerea</i>			
236.	15835 <i>Loxocarya striata</i>			
237.	1198 <i>Luzula meridionalis</i> (Field Woodrush)			
238.	32401 <i>Macromitrium archeri</i>			
239.	17638 <i>Marianthus granulatus</i>		P4	
240.	17678 <i>Meeboldina kraussii</i>			
241.	5878 <i>Melaleuca blauerifolia</i>			
242.	17982 <i>Melaleuca carrii</i>			
243.	5902 <i>Melaleuca densa</i>			
244.	5924 <i>Melaleuca lateralis</i>			
245.	5971 <i>Melaleuca striata</i>			
246.	5988 <i>Melaleuca violacea</i>			
247.	8814 <i>Microtis brownii</i>			
248.	4090 <i>Mirbelia dilatata</i> (Holly-leaved Mirbelia)			
249.	7289 <i>Myoporum caprarioides</i> (Slender Myoporum)			
250.	6465 <i>Oligarrhena micrantha</i>			
251.	7348 <i>Opercularia hispidula</i> (Hispid Stinkweed)			

Name ID	Species Name	Naturalised	Conservation Code	Endemic To Query Area
252.	7354 <i>Opercularia volubilis</i> (Twining Stinkweed)			
253.	36201 <i>Ornduffia calthifolia</i> (Mountain Villarsia)		T	
254.	13135 <i>Ozothamnus ramosus</i>			
255.	1551 <i>Patersonia pygmaea</i> (Pygmy Patersonia)			
256.	1553 <i>Patersonia umbrosa</i> (Yellow Flags)			
257.	15501 <i>Pericalymma spongiocaula</i>			
258.	2293 <i>Petrophile diversifolia</i>			
259.	2309 <i>Petrophile serruriae</i>			
260.	11533 <i>Pimelea imbricata</i> var. <i>imbricata</i>			
261.	11402 <i>Pimelea imbricata</i> var. <i>piligera</i>			
262.	11639 <i>Pimelea longiflora</i> subsp. <i>longiflora</i>			
263.	12041 <i>Pimelea suaveolens</i> subsp. <i>suaveolens</i>			
264.	5269 <i>Pimelea sylvestris</i>			
265.	6249 <i>Platysace compressa</i> (Tapeworm Plant)			
266.	6253 <i>Platysace filiformis</i>			
267.	19062 <i>Pleurophascum occidentale</i>		P4	
268.	583 <i>Polyogon tenellus</i>			
269.	1693 <i>Pterostylis recurva</i> (Jug Orchid)			
270.	18655 <i>Pterostylis</i> sp. <i>crinkled leaf</i> (G.J. Keighery 13426)			
271.	1698 <i>Pterostylis vittata</i> (Banded Greenhood)			
272.	2742 <i>Ptilotus manglesii</i> (Pom Poms)			
273.	20653 <i>Ptilotus</i> sp. <i>Beaufort River</i> (G.J. Keighery 16554)			
274.	23484 <i>Ptilotus</i> sp. <i>Porongurup</i> (R. Davis 10805)			Y
275.	4187 <i>Pultenaea verruculosa</i>			
276.	32419 <i>Racomitrium crispulum</i>			
277.	2932 <i>Ranunculus colonorum</i> (Common Buttercup)			
278.	32421 <i>Rhacocarpus purpurascens</i>			
279.	4695 <i>Ricinocarpus glaucus</i>			
280.	6027 <i>Rinzia schollerifolia</i>			
281.	32425 <i>Rosulabryum billarderi</i>			
282.	32426 <i>Rosulabryum campylothecium</i>			
283.	20506 <i>Rubus anglocandicans</i>	Y		
284.	5066 <i>Rulingia parviflora</i> (Small Flowered Rulingia)			
285.	6483 <i>Samolus junceus</i>			
286.	7598 <i>Scaevola auriculata</i>			
287.	7613 <i>Scaevola glandulifera</i> (Viscid Hand-flower)			
288.	6263 <i>Schoenolaena juncea</i>			
289.	985 <i>Schoenus discifer</i>			
290.	1006 <i>Schoenus odontocarpus</i>			
291.	17614 <i>Schoenus plumosus</i>			
292.	1023 <i>Schoenus tenellus</i>			
293.	32433 <i>Sematophyllum homomallum</i>			
294.	8215 <i>Senecio minimus</i> (Toothed Fireweed)			
295.	8218 <i>Senecio ramosissimus</i> (Auricled Groundsel)			
296.	4200 <i>Sphaerolobium alatum</i>			
297.	31931 <i>Sphenotoma capitata</i>			
298.	6468 <i>Sphenotoma drummondii</i> (Mountain Paper-heath)		T	
299.	4833 <i>Spyridium spadiceum</i>		P2	
300.	4733 <i>Stackhousia monogyna</i>			
301.	39881 <i>Stylidium acuminatum</i> subsp. <i>meridionale</i>			
302.	7678 <i>Stylidium adnatum</i> (Common Beaked Triggerplant)			
303.	7684 <i>Stylidium amoenum</i> (Lovely Triggerplant)			
304.	12057 <i>Stylidium corymbosum</i> var. <i>corymbosum</i>			
305.	7712 <i>Stylidium despectum</i> (Dwarf Triggerplant)			
306.	7734 <i>Stylidium guttatum</i> (Dotted Triggerplant)			
307.	7738 <i>Stylidium imbricatum</i> (Tile Leaved Triggerplant)			
308.	7745 <i>Stylidium junceum</i> (Reed Triggerplant)			
309.	7773 <i>Stylidium petiolare</i> (Horn Triggerplant)			
310.	7785 <i>Stylidium repens</i> (Matted Triggerplant)			
311.	7798 <i>Stylidium schoenoides</i> (Cow Kicks)			
312.	25845 <i>Stylidium tenue</i>			
313.	2324 <i>Synaphea petiolaris</i> (Synaphea)			
314.	16864 <i>Synaphea petiolaris</i> subsp. <i>petiolaris</i>			
315.	2328 <i>Synaphea reticulata</i>			
316.	20100 <i>Taxandria angustifolia</i>			
317.	20105 <i>Taxandria conspicua</i> subsp. <i>conspicua</i>			
318.	20135 <i>Taxandria linearifolia</i>			
319.	20133 <i>Taxandria parviceps</i>			
320.	20103 <i>Taxandria spathulata</i>			
321.	1036 <i>Tetralia octandra</i>			

Name ID	Species Name	Naturalised	Conservation Code	¹ Endemic To Query Area
322.	35579 <i>Tetraria</i> sp. Jarrah Forest (R. Davis 7391)			
323.	667 <i>Tetrarhena laevis</i> (Forrest Ricegrass)			
324.	4526 <i>Tetratheca affinis</i>			
325.	5080 <i>Thomasia foliosa</i>			
326.	5094 <i>Thomasia purpurea</i>			
327.	6065 <i>Thryptomene saxicola</i> (Rock Thryptomene)			
328.	1332 <i>Thysanotus gageoides</i>		P3	
329.	1354 <i>Thysanotus tenellus</i>			
330.	19045 <i>Trachymene grandis</i>			
331.	4547 <i>Tremandra diffusa</i>			
332.	4548 <i>Tremandra stelligera</i>			
333.	8251 <i>Trichocline spathulata</i> (Native Gerbera)			
334.	33677 <i>Triglochin centrocarpa</i>			
335.	13479 <i>Trymalium ledifolium</i> var. <i>rosmarinifolium</i>			
336.	33438 <i>Trymalium odoratissimum</i> subsp. <i>trifidum</i>			
337.	7148 <i>Utricularia multifida</i>			
338.	6076 <i>Verticordia densiflora</i> (Compacted Featherflower)			
339.	12411 <i>Verticordia densiflora</i> var. <i>cespitosa</i>			
340.	15619 <i>Verticordia endlicheriana</i> var. <i>endlicheriana</i>			
341.	6084 <i>Verticordia habrantha</i> (Hidden Featherflower)			
342.	14717 <i>Verticordia multiflora</i> subsp. <i>multiflora</i>			
343.	12465 <i>Verticordia subulata</i>			
344.	1255 <i>Xanthorrhoea platyphylla</i>			
345.	6284 <i>Xanthosia candida</i>			
346.	6292 <i>Xanthosia rotundifolia</i> (Southern Cross)			
347.	19938 <i>Xerochrysum bracteatum</i>			
348.	36218 <i>Zygodon menziesii</i>			

Conservation Codes

T - Rare or likely to become extinct
 X - Presumed extinct
 IA - Protected under international agreement
 S - Other specially protected fauna
 1 - Priority 1
 2 - Priority 2
 3 - Priority 3
 4 - Priority 4
 5 - Priority 5

¹ For NatureMap's purposes, species flagged as endemic are those whose records are wholly contained within the search area. Note that only those records complying with the search criterion are included in the calculation. For example, if you limit records to those from a specific datasource, only records from that datasource are used to determine if a species is restricted to the query area.



EPBC Act Protected Matters Report

This report provides general guidance on matters of national environmental significance and other matters protected by the EPBC Act in the area you have selected.

Information on the coverage of this report and qualifications on data supporting this report are contained in the caveat at the end of the report.

Information about the EPBC Act including significance guidelines, forms and application process details can be found at <http://www.environment.gov.au/epbc/assessmentsapprovals/index.html>

LGA PLANTAGENET, WA

Report created: 14/02/12 21:00:51

[Summary](#)

[Details](#)

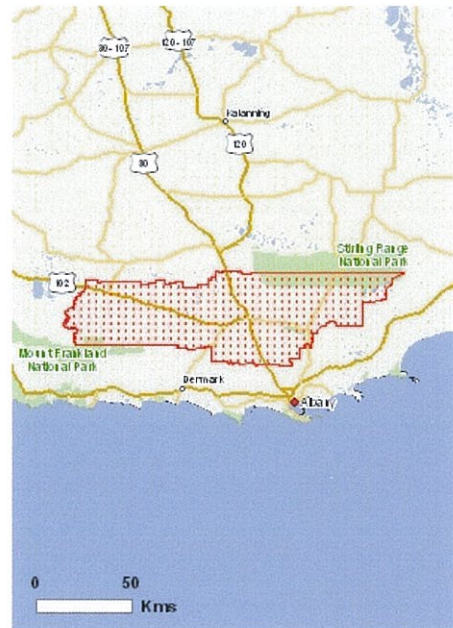
[Matters of NES](#)

[Other Matters Protected by the EPBC Act](#)

[Extra Information](#)

[Caveat](#)

[Acknowledgements](#)



This map may contain data which are ©Commonwealth of Australia (Geoscience Australia), ©PSMA 2010



Summary

Matters of National Environment Significance

This part of the report summarises the matters of national environmental significance that may occur in, or may relate to, the area you nominated. Further information is available in the detail part of the report, which can be accessed by scrolling or following the links below. If you are proposing to undertake an activity that may have a significant impact on one or more matters of national environmental significance then you should consider the Administrative Guidelines on Significance - see <http://www.environment.gov.au/epbc/assessmentsapprovals/guidelines/index.html>

World Heritage Properties:	None
National Heritage Places:	2
Wetlands of International	1
Great Barrier Reef Marine Park:	None
Commonwealth Marine Areas:	None
Threatened Ecological Communities:	None
Threatened Species:	62
Migratory Species:	10

Other Matters Protected by the EPBC Act

This part of the report summarises other matters protected under the Act that may relate to the area you nominated. Approval may be required for a proposed activity that significantly affects the environment on Commonwealth land, when the action is outside the Commonwealth land, or the environment anywhere when the action is taken on Commonwealth land. Approval may also be required for the Commonwealth or Commonwealth agencies proposing to take an action that is likely to have a significant impact on the environment anywhere.

The EPBC Act protects the environment on Commonwealth land, the environment from the actions taken on Commonwealth land, and the environment from actions taken by Commonwealth agencies. As heritage values of a place are part of the 'environment', these aspects of the EPBC Act protect the Commonwealth Heritage values of a Commonwealth Heritage place and the heritage values of a place on the Register of the National Estate. Information on the new heritage laws can be found at <http://www.environment.gov.au/heritage/index.html>

This part of the report summarises other matters protected under the Act that may relate to the area you nominated. Approval may be required for a proposed activity that significantly affects the environment on Commonwealth land, when the action is outside the Commonwealth land, or the environment anywhere when the action is taken on Commonwealth land. Approval may also be required for the Commonwealth or Commonwealth agencies proposing to take an action that is likely to have a significant impact on the environment anywhere.

A permit may be required for activities in or on a Commonwealth area that may affect a member of a listed threatened species or ecological community, a member of a listed migratory species, whales and other cetaceans, or a member of a listed marine species. Information on EPBC Act permit requirements and application forms can be found at <http://www.environment.gov>.

Commonwealth Lands:	1
Commonwealth Heritage Places:	None
Listed Marine Species:	8
Whales and Other Cetaceans:	None
Critical Habitats:	None
Commonwealth Reserves:	None

Extra Information

This part of the report provides information that may also be relevant to the area you have

Place on the RNE:	28
State and Territory Reserves:	31
Regional Forest Agreements:	1
Invasive Species:	14
Nationally Important Wetlands:	1

Details

Matters of National Environmental Significance

National Heritage Properties		[Resource Information]
Name	State	Status
Natural		
Porongurup National Park	WA	Listed place
Stirling Range National Park	WA	Listed place
Wetlands of International Significance (RAMSAR)		[Resource Information]
Name	Proximity	
Lake muir - byenup lagoon	Within 10km of Ramsar	
Threatened Species		[Resource Information]

Name	Status	Type of Presence
BIRDS		
Atrichornis clamosus Noisy Scrub-bird [654]	Vulnerable	Species or species habitat likely to occur within area
Botaurus poiciloptilus Australasian Bittern [1001]	Endangered	Species or species habitat likely to occur within area
Cacatua pastinator pastinator Muir's Corella (southern), Western Long-billed Corella (southern) [25981]	Vulnerable	Species or species habitat likely to occur within area
Calyptorhynchus banksii naso Forest Red-tailed Black-Cockatoo [67034]	Vulnerable	Species or species habitat may occur within area
Calyptorhynchus baudinii Baudin's Black-Cockatoo, Long-billed Black-Cockatoo [769]	Vulnerable	Breeding likely to occur within area
Calyptorhynchus latirostris Carnaby's Black-Cockatoo, Short-billed Black-Cockatoo [59523]	Endangered	Breeding likely to occur within area
Dasyornis longirostris Western Bristlebird [515]	Vulnerable	Species or species habitat likely to occur within area
Leipoa ocellata Malleefowl [934]	Vulnerable	Species or species habitat likely to occur within area
FISH		
Galaxias truttaceus hesperius Western Trout Minnow, Western Trout Galaxias [81282]	Critically Endangered	Species or species habitat likely to occur within area
Nannatherina balstoni Balston's Pygmy Perch [66698]	Vulnerable	Species or species habitat likely to occur within area
FROGS		
Spicospina flammocaerulea Sunset Frog [64782]	Endangered	Species or species habitat likely to occur within area
MAMMALS		
Bettongia penicillata ogilbyi Woylie [66844]	Endangered	Species or species habitat may occur within area
Dasyurus geoffroi Chuditch, Western Quoll [330]	Vulnerable	Species or species habitat likely to occur within area
Myrmecobius fasciatus Numbat [294]	Vulnerable	Species or species habitat likely to occur within area
Parantechinus apicalis Dibbler [313]	Endangered	Translocated population known to occur within area
Pseudocheirus occidentalis Western Ringtail Possum [25911]	Vulnerable	Species or species habitat likely to occur within area
Setonix brachyurus Quokka [229]	Vulnerable	Species or species habitat may occur within area
PLANTS		
Acacia insolita subsp. recurva Yornaning Wattle [64495]	Endangered	Species or species habitat likely to occur

Name	Status	Type of Presence within area
Adenanthos pungens subsp. pungens Spiky Adenanthos [19429]	Vulnerable	Species or species habitat likely to occur within area
Andersonia axilliflora Giant Andersonia [16916]	Endangered	Species or species habitat likely to occur within area
Anigozanthos bicolor subsp. minor Little Kangaroo Paw, Two-coloured Kangaroo Paw [21241]	Endangered	Species or species habitat likely to occur within area
Apium prostratum subsp. Porongurup Range (G.J.Keighery 8631) Fine-leaved Apium, Porongurup Celery [82019]	Vulnerable	Species or species habitat known to occur within area
Banksia anatona Cactus Dryandra [82758]	Endangered	Species or species habitat known to occur within area
Banksia brownii Brown's Banksia, Feather-leaved Banksia [8277]	Endangered	Species or species habitat known to occur within area
Banksia goodii Good's Banksia [16727]	Vulnerable	Species or species habitat likely to occur within area
Banksia ionthocarpa Kamballup Dryandra [82764]	Endangered	Species or species habitat likely to occur within area
Banksia pseudoplumosa a shrub [82760]	Endangered	Species or species habitat known to occur within area
Caladenia christineae Christine's Spider Orchid [56716]	Vulnerable	Species or species habitat likely to occur within area
Caladenia dorrienii Cossack Spider-orchid [6596]	Endangered	Species or species habitat likely to occur within area
Caladenia harringtoniae Harrington's Spider-orchid, Pink Spider-orchid [56786]	Vulnerable	Species or species habitat likely to occur within area
Caladenia winfieldii Majestic Spider-orchid [64504]	Endangered	Species or species habitat may occur within area
Centrolepis caespitosa [6393]	Endangered	Species or species habitat known to occur within area
Chordifex abortivus Manypeaks Rush [64868]	Endangered	Species or species habitat may occur within area
Conostylis misera Grass Conostylis [21320]	Endangered	Species or species habitat known to occur within area
Darwinia collina Yellow Mountain Bell [17296]	Endangered	Species or species habitat known to occur within area
Darwinia meeboldii Cranbrook Bell [21512]	Vulnerable	Species or species habitat likely to occur within area

Name	Status	Type of Presence
Darwinia nubigena Success Bell, Red Mountain Bell [83191]	Vulnerable	Species or species habitat likely to occur within area
Darwinia oxylepis Gillham's Bell [13188]	Endangered	Species or species habitat known to occur within area
Darwinia squarrosa Fringed Mountain Bell, Pink Mountain Bell [15694]	Vulnerable	Species or species habitat likely to occur within area
Darwinia wittwerorum Wittwer's Mountain Bell [15626]	Endangered	Species or species habitat known to occur within area
Daviesia glossosema Maroon-flowered Daviesia [65037]	Critically Endangered	Species or species habitat likely to occur within area
Daviesia megacalyx Long-sepalled Daviesia [56785]	Endangered	Species or species habitat likely to occur within area
Daviesia obovata Paddle-leaf Daviesia [17311]	Endangered	Species or species habitat known to occur within area
Daviesia pseudaphylla Stirling Range Daviesia [56747]	Endangered	Species or species habitat likely to occur within area
Deyeuxia drummondii Drummond's Grass, Drummond Grass [20644]	Endangered	Species or species habitat likely to occur within area
Diuris drummondii Tall Donkey Orchid [4365]	Vulnerable	Species or species habitat likely to occur within area
Drakaea confluens Late Hammer-orchid [56778]	Endangered	Species or species habitat likely to occur within area
Drakaea micrantha Dwarf Hammer-orchid [56755]	Vulnerable	Species or species habitat likely to occur within area
Drosera fimbriata Manypeaks Sundew [18749]	Vulnerable	Species or species habitat likely to occur within area
Gastrolobium luteifolium Yellow-leaved Gastrolobium [78405]	Critically Endangered	Species or species habitat likely to occur within area
Grevillea maxwellii Maxwell's Grevillea [21745]	Endangered	Species or species habitat likely to occur within area
Isopogon uncinatus Hook-leaf Isopogon [20871]	Endangered	Species or species habitat known to occur within area
Lambertia fairallii Fairalls Honeysuckle [4881]	Endangered	Species or species habitat known to occur within area
Lambertia orbifolia Roundleaf Honeysuckle [15725]	Endangered	Species or species habitat likely to occur within area
Leucopogon gnaphalioides Stirling Range Beard Heath [21609]	Endangered	Species or species

Name	Status	Type of Presence
Orthrosanthus muelleri South Stirling Morning Iris [21478]	Endangered	habitat known to occur within area Species or species habitat known to occur within area
Persoonia micranthera Small-flowered Snottygobble [64939]	Endangered	Species or species habitat likely to occur within area
Sphenotoma drummondii [21160]	Endangered	Species or species habitat known to occur within area
Thelymitra psammophila Sandplain Sun-orchid [4908]	Vulnerable	Species or species habitat likely to occur within area
Verticordia apecta Hay River Featherflower, Scruffy Verticordia [65545]	Critically Endangered	Species or species habitat known to occur within area
Verticordia carinata Stirling Range Featherflower [24342]	Vulnerable	Species or species habitat likely to occur within area
Xyris exilis Stirling Range Xyris [64983]	Vulnerable	Species or species habitat likely to occur within area

Migratory Species [\[Resource Information \]](#)

* Species is listed under a different scientific name on the EPBC Act - Threatened Species list.

Name	Threatened	Type of Presence
Migratory Marine Birds		
Apus pacificus Fork-tailed Swift [678]		Species or species habitat may occur within area
Ardea alba Great Egret, White Egret [59541]		Species or species habitat may occur within area
Ardea ibis Cattle Egret [59542]		Species or species habitat may occur within area
Migratory Terrestrial Species		
Cacatua pastinator pastinator Muir's Corella (southern), Western Long-billed Corella (southern) [25981]	Vulnerable	Species or species habitat likely to occur within area
Haliaeetus leucogaster White-bellied Sea-Eagle [943]		Species or species habitat likely to occur within area
Leipoa ocellata Malleefowl [934]	Vulnerable	Species or species habitat likely to occur within area
Merops ornatus Rainbow Bee-eater [670]		Species or species habitat may occur within area
Migratory Wetlands Species		
Ardea alba Great Egret, White Egret [59541]		Species or species habitat may occur within area
Ardea ibis Cattle Egret [59542]		Species or species habitat may occur within area

Name	Threatened	Type of Presence
Calidris ruficollis Red-necked Stint [860]		Species or species habitat known to occur within area

Other Matters Protected by the EPBC Act

Commonwealth Lands [\[Resource Information \]](#)

The Commonwealth area listed below may indicate the presence of Commonwealth land in this vicinity. Due to the unreliability of the data source, all proposals should be checked as to whether it impacts on a Commonwealth area, before making a definitive decision. Contact the State or Territory government land department for further information.

Name
Commonwealth Land -

Listed Marine Species [\[Resource Information \]](#)

* Species is listed under a different scientific name on the EPBC Act - Threatened Species list.

Name	Threatened	Type of Presence
Birds		
Apus pacificus Fork-tailed Swift [678]		Species or species habitat may occur within area
Ardea alba Great Egret, White Egret [59541]		Species or species habitat may occur within area
Ardea ibis Cattle Egret [59542]		Species or species habitat may occur within area
Calidris ruficollis Red-necked Stint [860]		Species or species habitat known to occur within area
Charadrius ruficapillus Red-capped Plover [881]		Species or species habitat known to occur within area
Haliaeetus leucogaster White-bellied Sea-Eagle [943]		Species or species habitat likely to occur within area
Himantopus himantopus Black-winged Stilt [870]		Species or species habitat known to occur within area
Merops ornatus Rainbow Bee-eater [670]		Species or species habitat may occur within area

Extra Information

Places on the RNE [\[Resource Information \]](#)

Note that not all Indigenous sites may be listed.

Name	State	Status
Natural		
Gully Area	WA	Indicative Place
Blue Gum Creek Nature Reserve	WA	Interim List
Bolbelup Area	WA	Interim List
Chitelup Area	WA	Interim List
Chorkarup Area	WA	Interim List

Name	State	Status
Denbarker Area	WA	Interim List
Denmark Area	WA	Interim List
Kwornicup Nature Reserve	WA	Interim List
Lake Barnes Nature Reserve	WA	Interim List
Ongerup Lagoon Area	WA	Interim List
Randell Road Area	WA	Interim List
Roe Area	WA	Interim List
Sleeman Creek Nature Reserve	WA	Interim List
Tootanellup Nature Reserve	WA	Interim List
Wamballup Nature Reserve	WA	Interim List
Willmott Area	WA	Interim List
Millbrook Reserve	WA	Registered
Porongurup National Park	WA	Registered
Stirling Range National Park	WA	Registered

Historic

All Saints Anglican Church	WA	Indicative Place
Bakehouse (former)	WA	Indicative Place
Kalgan Hall	WA	Indicative Place
Mount Barker Railway Station	WA	Indicative Place
Old Bush Inn Ruin	WA	Indicative Place
Old Hay River Bridge	WA	Indicative Place
Mining Battery (former)	WA	Registered
Police Station and Gaol (former)	WA	Registered
St Werburghs Anglican Chapel	WA	Registered

State and Territory Reserves

[[Resource Information](#)]

Name	State
Blue Gum Creek	WA
Chillinup	WA
Chorkerup	WA
Gill	WA
Kalgan Plains	WA
Kwornicup Lake	WA
Lake Barnes Road	WA
Lake Eyrie	WA
Mill Brook	WA
Mt Lindesay	WA
Mt Roe	WA
Napier	WA
Ongerup Lagoon	WA
Pardelup	WA
Pardelup Road	WA
Porongurup	WA
Quindinup	WA
Randell Road	WA
Sleeman Creek	WA
South Stirling	WA
Stirling Range	WA
Tootanellup	WA
Unnamed WA10003	WA
Unnamed WA11343	WA
Unnamed WA15775	WA
Unnamed WA16262	WA
Unnamed WA24943	WA
Unnamed WA25545	WA
Unnamed WA25705	WA
Unnamed WA46714	WA
Wamballup	WA

Regional Forest Agreements

[[Resource Information](#)]

Note that all areas with completed RFAs have been included.

Name	State
South West WA RFA	Western Australia

Invasive Species

[Resource Information]

Weeds reported here are the 20 species of national significance (WoNS), along with other introduced plants that are considered by the States and Territories to pose a particularly significant threat to biodiversity. The following feral animals are reported: Goat, Red Fox, Cat, Rabbit, Pig, Water Buffalo and Cane Toad. Maps from Landscape Health Project, National Land and Water Resources Audit,

Name	Status	Type of Presence
Mammals		
Capra hircus Goat [2]		Species or species habitat likely to occur within area
Felis catus Cat, House Cat, Domestic Cat [19]		Species or species habitat likely to occur within area
Oryctolagus cuniculus Rabbit, European Rabbit [128]		Species or species habitat likely to occur within area
Sus scrofa Pig [6]		Species or species habitat likely to occur within area
Vulpes vulpes Red Fox, Fox [18]		Species or species habitat likely to occur within area
Plants		
Asparagus asparagoides Bridal Creeper, Bridal Veil Creeper, Smilax, Florist's Smilax, Smilax Asparagus [22473]		Species or species habitat likely to occur within area
Cenchrus ciliaris Buffel-grass, Black Buffel-grass [20213]		Species or species habitat may occur within area
Genista sp. X Genista monspessulana Broom [67538]		Species or species habitat may occur within area
Lantana camara Lantana, Common Lantana, Kamara Lantana, Large-leaf Lantana, Pink Flowered Lantana, Red Flowered Lantana, Red-Flowered Sage, White Sage, Wild Sage [10892]		Species or species habitat likely to occur within area
Lycium ferocissimum African Boxthorn, Boxthorn [19235]		Species or species habitat may occur within area
Pinus radiata Radiata Pine Monterey Pine, Insignis Pine, Wilding Pine [20780]		Species or species habitat may occur within area
Rubus fruticosus aggregate Blackberry, European Blackberry [68406]		Species or species habitat likely to occur within area
Salix spp. except S.babylonica, S.x calodendron & S.x reichardtiji Willows except Weeping Willow, Pussy Willow and Sterile Pussy Willow [68497]		Species or species habitat likely to occur within area
Ulex europaeus Gorse, Furze [7693]		Species or species habitat likely to occur within area

Nationally Important Wetlands

[Resource Information]

Name	State
Mt Soho Swamps	WA

Caveat

The information presented in this report has been provided by a range of data sources as acknowledged at the end of the report.

This report is designed to assist in identifying the locations of places which may be relevant in determining obligations under the Environment Protection and Biodiversity Conservation Act 1999. It holds mapped locations of World Heritage and Register of National Estate properties, Wetlands of International Importance, Commonwealth and State/Territory reserves, listed threatened, migratory and marine species and listed threatened ecological communities. Mapping of Commonwealth land is not complete at this stage. Maps have been collated from a range of sources at various

Not all species listed under the EPBC Act have been mapped (see below) and therefore a report is a general guide only. Where available data supports mapping, the type of presence that can be determined from the data is indicated in general terms. People using this information in making a referral may need to consider the qualifications below and may need to seek and consider other

For threatened ecological communities where the distribution is well known, maps are derived from recovery plans, State vegetation maps, remote sensing imagery and other sources. Where threatened ecological community distributions are less well known, existing vegetation maps and point location data are used to produce indicative distribution maps.

For species where the distributions are well known, maps are digitised from sources such as recovery plans and detailed habitat studies. Where appropriate, core breeding, foraging and roosting areas are indicated under 'type of presence'. For species whose distributions are less well known, point locations are collated from government wildlife authorities, museums, and non-government organisations; bioclimatic distribution models are generated and these validated by experts. In some cases, the distribution maps are based solely on expert knowledge.

Only selected species covered by the following provisions of the EPBC Act have been mapped:

- migratory and
- marine

The following species and ecological communities have not been mapped and do not appear in reports produced from this database:

- threatened species listed as extinct or considered as vagrants
- some species and ecological communities that have only recently been listed
- some terrestrial species that overfly the Commonwealth marine area
- migratory species that are very widespread, vagrant, or only occur in small numbers

The following groups have been mapped, but may not cover the complete distribution of the species:

- non-threatened seabirds which have only been mapped for recorded breeding sites
- seals which have only been mapped for breeding sites near the Australian continent

Such breeding sites may be important for the protection of the Commonwealth Marine environment.

Acknowledgements

This database has been compiled from a range of data sources. The department acknowledges the following custodians who have contributed valuable data and advice:

- [Department of Environment, Climate Change and Water, New South Wales](#)
- [Department of Sustainability and Environment, Victoria](#)
- [Department of Primary Industries, Parks, Water and Environment, Tasmania](#)
- [Department of Environment and Natural Resources, South Australia](#)
- [Parks and Wildlife Service NT, NT Dept of Natural Resources, Environment and the Arts](#)
- [Environmental and Resource Management, Queensland](#)
- [Department of Environment and Conservation, Western Australia](#)
- [Department of the Environment, Climate Change, Energy and Water](#)
- [Birds Australia](#)
- [Australian Bird and Bat Banding Scheme](#)
- [Australian National Wildlife Collection](#)
- Natural history museums of Australia
- [Museum Victoria](#)
- [Australian Museum](#)
- [SA Museum](#)
- [Queensland Museum](#)
- [Online Zoological Collections of Australian Museums](#)
- [Queensland Herbarium](#)
- [National Herbarium of NSW](#)
- [Royal Botanic Gardens and National Herbarium of Victoria](#)
- [Tasmanian Herbarium](#)
- [State Herbarium of South Australia](#)
- [Northern Territory Herbarium](#)
- [Western Australian Herbarium](#)
- [Australian National Herbarium, Atherton and Canberra](#)
- [University of New England](#)
- [Ocean Biogeographic Information System](#)
- [Australian Government, Department of Defence](#)
- [State Forests of NSW](#)
- Other groups and individuals

The Department is extremely grateful to the many organisations and individuals who provided expert advice and information on numerous draft distributions.

Please feel free to provide feedback via the Contact Us page.

© Commonwealth of Australia
Department of Sustainability, Environment, Water, Population and Communities
GPO Box 787
Canberra ACT 2601 Australia
+61 2 6274 1111

Appendix C

Fire Management Plan

FirePlan WA - March 2012

FIRE MANAGEMENT PLAN

Lot 4853 Porongurup Road

Porongurup

Shire of Plantagenet



FirePlan WA

March 2012

TABLE OF CONTENTS

1.0	PURPOSE OF THE MANAGEMENT PLAN	4
2.0	SUBDIVISION LOCATION AND DETAILS	4
3.0	SITE DETAILS	4
4.0	STATUTORY CONDITIONS	5
5.0	BUSH FIRE HAZARD ASSESSMENT	5
6.0	FIRE MITIGATION	8
6.1	<i>Element 1 Location of Development</i>	8
6.2	<i>Element 2 Vehicle Access Roads, Battle Axe Access, Firebreaks and Private Driveways</i>	8
6.3	<i>Element 3 Water Supplies Water for Fire Fighting, Fire Service</i>	10
6.4	<i>Element 4 Siting of Development Building Protection Zones, Hazard Separation Zones, Hazard Reduction, Planting of Trees and Shrubs and Dwelling Construction</i>	12
6.5	<i>Element 5 Design of Development</i>	17
7.0	SUMMARY	19
7.1	<i>Overall Fire Threat</i>	19
7.2	<i>Property Owners Responsibilities</i>	19
7.3	<i>Developers Responsibilities</i>	19
7.4	<i>Shire of Plantagenet Responsibilities</i>	20
	Appendix A Development Layout - SGP	21
	Appendix B Development Envelope, Building Protection and Hazard Separation Zones	22
	Appendix C Water Supplies for Fire Fighting	23
	Appendix D Rural Gate Standard – Minimum Fire Management Plan Compliance Checklist	24

Fire Management Plan Lot 4853 Porongurup Road, Porongurup Shire of Plantagenet

Prepared For

**Ironwood Estate
Gene Harma**

**Prepared By
FirePlan WA
10 Bracken Road
Thornlie WA 6108**

T: 94931692 F: 94930330 E: firepla@bigpond.net.au

Document Status

Version	Comment	Reviewer	Review Date
Version 1		BWH	May 2011
Version 2	Ayton Baesjou Planning & Gene Harma	BWH	19.03.12
Version 4		DKB/BWH	29.03.12
Version 5	SGP & DE plans replaced	WJR/DKB	31.05.12

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.

1.0 PURPOSE OF THE MANAGEMENT PLAN

The purpose of this Bushfire Management Plan is to detail the Fire Management methods and requirements that will be implemented within the proposed subdivision and subsequent development of Lot 4853. The aim of the Bushfire Management Plan is to reduce the occurrence of and minimise the impact of bush fires thereby reducing the threat to residents, fire fighters and the environment in the event of a fire within or near the subdivision. This Fire Management Plan is a revision of the Fire Management Plan prepared in 2008. This more recent document also supports Amendment 58 to Town Planning Scheme No.3 which proposes to rationalize the zoning of the subject land. The aim of this Fire Management Plan is to document fire prevention requirements of the proposed Rural Living subdivision, expansion of Ironwood Estate Winery and development of new tourist accommodation.

2.0 SUBDIVISION LOCATION AND DETAILS

The subject land comprises of Lot 4853 Porongurup Road Porongurup the Shire of Plantagenet. It is to be developed the north and eastern portions of the property into 12 lots of approximately 1-7 ha in size.

The Subdivision Guide Plan for the Rural Residential area shows the indicative road and lot layout, together with key elements of this Fire Management Plan.

The extended Special Site will encompass the southern and western portions of the property. The zoning and associated Special Provisions allow for Holiday Chalets, Restaurant, Wine Tasting, Viticulture and Aquaculture.

3.0 SITE DETAILS

The subject land is located on the northern side of the Porongurup Range and has frontage to the Porongurup Road and Stoney Creek Road. The southern portion of Lot 4853 contains approximately 3.5 ha of established vines associated with Ironwood Estates Wines. Planting of an additional 3.0 ha of vines is proposed south of the existing vineyard. Lot 4853 is also the subject of an approved Restaurant/Cellar Sales and Managers Residence (completed in 2008).

The large dam adjacent to the southern boundary is used for aquaculture, irrigation and emergency water supply.

The northern portion of the site of the site contains cleared areas which have been pastured and are used for intermittent grazing. The site contains riparian vegetation along Stoney Creek and areas of Remnant vegetation.

The site was subjected to a wildfire in 2006/2007 bushfire season

4.0 STATUTORY CONDITIONS

The Western Australian Planning Commission and the Shire of Plantagenet requires the preparation of a 'Bushfire Management Plan' as part of the supporting documentation for this Town Planning Scheme Amendment and as a Condition of Subdivision. This document has been prepared to satisfy that requirement in accordance with *Planning for Bush Fire Protection 2010*.

As fire management strategies may require altering to meet changing climate, weather patterns, environmental and land use needs, landowners/occupiers are advised that provisions of the Bush Fires Act 1954 may still be enforced in addition to this Fire Management Plan.

The Shire of Plantagenet in conjunction with Landowners will be responsible for initiating a review of this fire management plan as it may see necessary to do so.

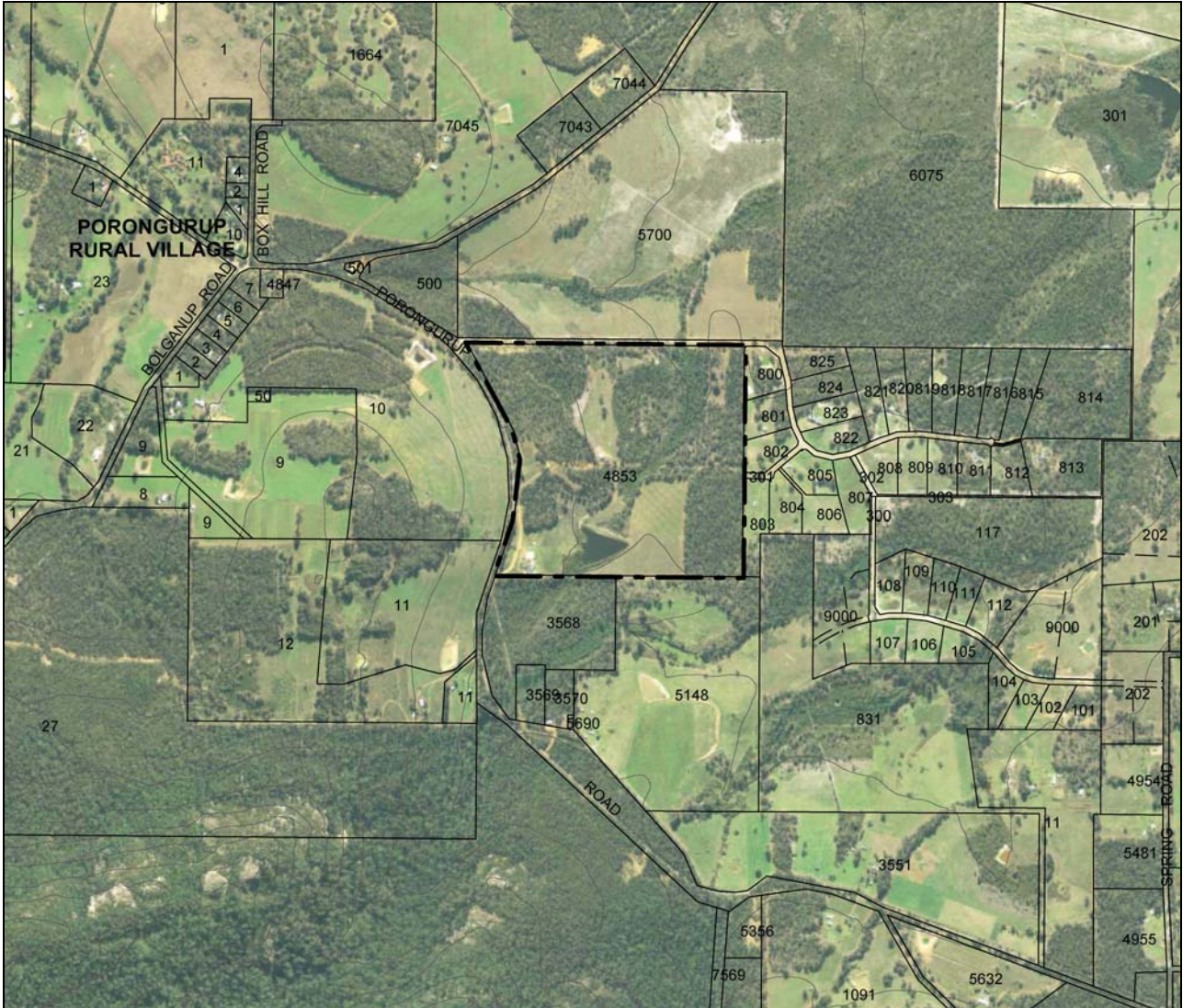
5.0 BUSH FIRE HAZARD ASSESSMENT

Bush Fire Hazard Assessment is determined by rating the vegetation type in accordance with Table 1 and Figure 2 of *Planning for Bush Fire Protection 2010*. It is also based on the underlying assumption that land in Western Australia is predominantly undulating with relatively short, steep inclines. In *Planning for Bush Fire Protection (Edition 2 2010)* the bush fire hazard assessment methodology identifies 3 three levels low, moderate and extreme.


The Bush Fire Hazard Assessment for the proposed development area is rated "Low" in cleared areas and vineyard sites "Moderate" partly cleared areas and "Extreme" in riparian and remnant vegetation areas. To the east is mainly cleared 1 & 2 ha lots with some remnant vegetation and cleared areas to the south. See Diagram 2


The Mediterranean climate experienced by this area is such that the majority of rain falls in late autumn through to early spring. This rainfall supports substantial vegetation growth which dries off in Summer/Autumn.

Diagram 1 – Locality Map



LEGEND

 Subject Land

 N

ORIG A4
SCALE 1:20000

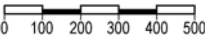


Diagram 2 Bush Fire Hazard Assessment.



6.0 BUSH FIRE MITIGATION

In this Section of the Fire Management Plan when complying with the Acceptable Solution detailed in *Planning for Bush Fire Protection* 2010 it will be shown as (A2.1) meaning Acceptable Solution 2.1 of the guidelines.

The subdivision has been designed so as to take into account the following fire mitigation measures:-

- Element 1 Location of Development
- Element 2 Vehicle Access
 - Roads, Battleaxe Access, Firebreaks, Private Driveways
- Element 3 Water Supplies
- Element 4 Siting of Development
 - Building Protection Zones, Hazard Separation Zones, Hazard Reduction, Planting of trees, Dwelling Construction Standards.
- Element 5 Design of Development

6.1 ELEMENT 1 LOCATION OF DEVELOPMENT

The nominated Tourist Accommodation sites and portion of the proposed Rural Residential subdivision are located on land that the Bush Fire Hazard Assessment has identified as “Low”. Portion of this subdivision is located on land that the Bush Fire Hazard Assessment has identified as “Moderate” and “Extreme” but will have Building Protection Zones, Hazard Separation Zones and an increase in Building Construction Standards in accordance with AS 3959-2009. (A1.1)

6.2 ELEMENT 2 VEHICLE ACCESS

6.2.1 Public Roads

A road from Stoney Creek Road through the site and link up with the cul de sac in the adjoining subdivision to the east will provide a loop road to Stoney Creek Road. This road will comply with minimum A 2.2.

An Emergency Access will be provided from the SW corner of proposed Lot 4 on the alignment of the existing Fire Management Track (See Appendix B) to the Residence/Restaurant/Cellar in the SW corner of the site providing access to Porongurup Road. This access will comply with A2.6

Rural Gates a minimum of 4.1 metres wide are to be installed by the Developer in the proposed emergency accesses to restrict day to day traffic. A sign is to be erected on the gates “Emergency Fire Access Only” or wording to the satisfaction of the Shire of Plantagenet.

An easement, or other appropriate arrangements, in favour of the Shire of Plantagenet shall be provided to ensure access to water in the dam for emergency supply purposes.

6.2.2 Firebreaks

The Developer/Landowner/Occupier of the land will at all times comply with the Shire of Plantagenet Firebreak Notice and amended from time to time, issued annually in addition to this fire management plan (A2.9).

In addition to the standard firebreaks required by the Shire of Plantagenet, Fire Service Accesses will be installed in the locations marked FMT on the Subdivision Guide Plan/Appendix B to this FMP. The Fire Service Access will serve as a 'Strategic Fire Break', in lieu of rear and side boundary firebreaks on selected lots containing the 'Ecological Corridor'. The Fire Service Access will be installed by the Developer and maintained by the landowners in perpetuity in the locations marked FMT in Appendix B. The Fire Service Access is only to be used by fire appliances and not by 2 wheel drive vehicles; the trafficable surface is to be suitable for fire appliances. No gates are proposed to be installed by the developer along the Fire Service Access other than where they join onto a public Road, where a 4.1 metre rural gate with a sign "Emergency Fire Service Access Only" (or wording to the satisfaction of the Shire of Plantagenet) is erected on the gate. These Fire Service Accesses will comply with A2.7.

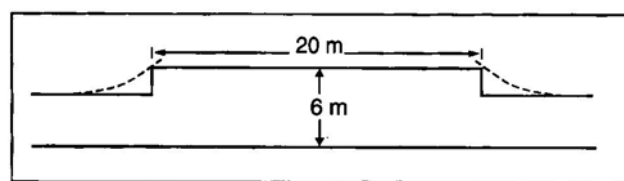
The Fire Service Access and Emergency Access (S 6.2.1) are to be cleared to 6 metres wide (significant trees and habitat trees are to be retained) 6 metre trafficable surface and a minimum of 4 metres vertically cleared.

Gates a minimum of 4.1 metres wide may be installed on dividing fence lines of Lots (if dividing fences are installed) so as to provide access from one Lot to another. No fences or boundary firebreaks are to be installed within the Ecological Corridor.

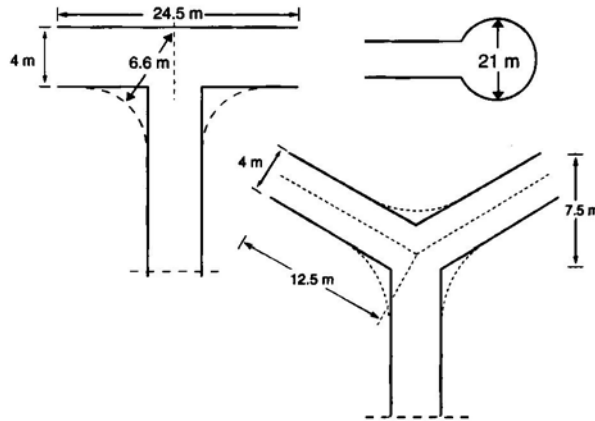
On this Fire Service Access there are to be passing bays every 200 metres and turn around areas every 500 metres. See specifications in Section 6.2.3.

6.2.3 Private Driveways

Driveways are to be cleared to 6 metres wide and have a 6 metre trafficable surface and 4 metre vertical clearance. Turn around areas are required every 500 metres and a turn around is to be located within 8 metres of the house. (A2.5 & E2.5)



Passing bay measurements.



Turn around area measurements.

6.3 ELEMENT 3 WATER SUPPLIES

6.3.1 Domestic Water Supply

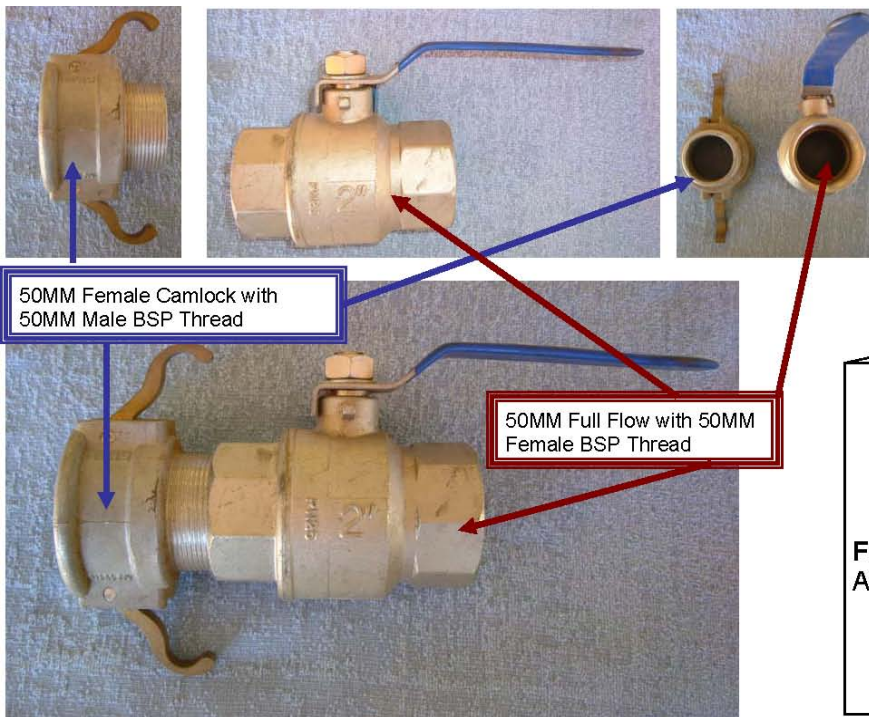
Each dwelling is to supply their own domestic water (minimum 92kl tank) or as determined by the Shire of Plantagenet, for potable and other uses.

Each property shall at all times store a minimum of 10kl 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.

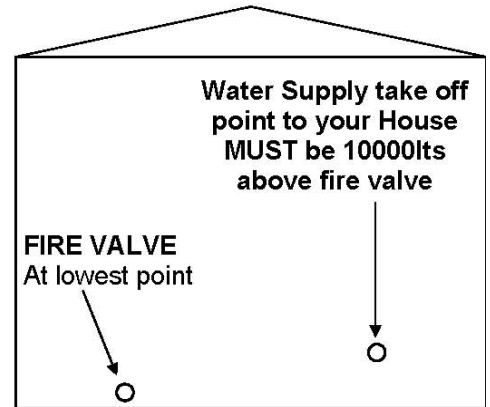
To enable standardisation of access to this supply, each private domestic vessel shall be fitted with a minimum 50mm Gate Valve and a 50 mm female camlock fitting with a blanking cap. This coupling and valve shall be installed and maintained in a correct operating condition at all times at the property owner's expense.

The domestic vessel shall be located in an area that will enable fire appliances to backup onto hardstand area to within 8 metres from the tank. Access is to be suitable for a large 15 tonne fire appliance with a 21 metre turning circle or as shown in the diagram in Section 6.2.3. Ensure fittings comply with Static Water Supplies and Hard Suction Connections (FESA Publication 2004, FESA Website. www.fesa.wa.gov.au)

Domestic Water Supply fittings.



Sample Water Tank Layout



6.3.2 Water for Fire Fighting

The subdivider will provide water tank/supply of not less 50kl capacity for fire fighting purposes to service the Rural Residential development. The tank and/or standpipe will be designed and fitted with appropriate couplings to Council/FESA specifications. A hardstand area is to be located at the fill up point for fire appliances to park off the Road/Fire Service Access. The hardstand area must be large enough to carry a 15 tonnes fire appliance and must have a turning area of at least 20metres in diameter. The emergency water supply facility is to be located in the expanded road reserve and vested in the Shire of Plantagenet. (refer Fire Management Plan and SGP).

The existing dam will serve as a suitable Water supply. Depending on finished pavement height of the road, the standpipe may be connected by pipe and gravity fed. A caveat may be placed on Title of the site containing the Dam/pipe, or other suitable arrangements are to be put into place to secure access to the water in the dam for emergency purposes.

Alternatively the local brigade can maintain the tank at full capacity; as is the arrangement for the existing tanks in Stoney Creek Road and Crofts Rise within the adjoining Rural Residential subdivisions. (refer Appendix C - Emergency Water Supply Plan).

Additional water supplies are available within the Porongurup rural village, less than 1km to the west. The village is supplied with reticulated mains water (refer Appendix C for locations of water supplies for Fire Fighting in the general area).

At the time of development, and as a condition of approval, fire hose reels will be required to be installed around the Tourist Accommodation areas (chalets) and the proposed Caretaker's Residence to the standard detailed in the Caravan and Camping Regulations. A dedicated water supply for firefighting of a minimum of approximately 250-300kl with an automatic refill system will be required to service future tourist accommodation. An overhead fill or underground fire hydrant will be required to be provided downhill from the tank site so that fire appliances can fill up. A hardstand area is to be located at the fill up point for fire appliances to park of the Road/Fire Service Access. The flow rate at the outlet must achieve 600 litres/minute. An analysis of anticipated Tourist accommodation usage and restaurant/cellar use will need to be undertaken at time of the respective development applications and may require a greater volume than detailed above. In any case,

6.4 ELEMENT 4 SITING OF DEVELOPEMENT

Proposed habitable buildings will be located within building envelopes that are located in an area rated as "moderate" or "extreme" and will have increased building protection zones and hazard separation zones installed and building construction will be accordance with AS 3959-2009. A4.1.

6.4.1 Building Protection Zone (BPZ)

The aim of the Building Protection Zones is to reduce the amount of accumulated bush fire fuel and to lower the intensity of the impact of a bush fire by flame contact or radiated heat.

Non flammable features such as driveways, paths, vegetable patches, reticulated lawn, or landscaped gardens should form part of Building Protection Zones. Isolated trees and shrubs may be retained within Building Protection Zones. A Building Protection Zone of 20 metres is to be constructed within the lot around all buildings as follows. (A4.3):

- Bush Fire fuels to be maintained at or below 2 tonnes per hectare and dry grass must be maintained below a height of 50mm;
- The first 5m around all building is to be cleared of all flammable material. Reticulated gardens may be located in this zone;
- The spacing of trees should be 15-20 metres apart to provide for a separation of 10 metres between crowns;
- Trees are to be under/low pruned, to a height of 2 metres;
- No tall shrub or tree is to be planted within 2 metres of a building including windows;
- There are no tree crowns over hanging the building;
- Shrubs within the building protection zone have no dead material within the plant;
- Trees in the Building protection zone have no dead material within the plant's crown or on the bole (tree trunk)
- Fences and sheds within the Building Protection Zone are to be constructed using non combustible materials (e.g. colourbond iron, brick, limestone);
- Branches, must be removed at least 2 metres back from the eaves of all buildings;
- All leaves, twigs, logs, branches must be removed from within the building protection zone. Annual falls of leaf litter must be raked up and removed or burnt.

The Building Protection Zone is to be installed by the landowner prior to the commencement of new dwelling construction and maintained by the landowner in perpetuity.

6.4.2 Hazard Separation Zone (HSZ)

To provide additional fire protection there must be a physical separation between the buildings and the surrounding vegetation to reduce the impact of bush fires

upon the structures within the Building Protection Zone including ember attack. As the occurrence of bush fires in this district may occur and will burn in accordance with the prevailing weather and fuel conditions at the time, it is essential that property owners maintain HSZ on their land to have any degree of safety. The following practices should therefore be maintained (A4.4):

- An area of 30 metres outside the Building Protection Zone within each lot (or where this is not possible or desirable within the boundaries of the overall development in which the building is proposed to be located) is to be maintained as a Hazard Separation Zone.
- Bush fire fuels within the HSZ should be kept below 4-6tonnes/ha.
- All dry grass is to be slashed or grazed to 50 mm in height
- Tree crowns area minimum of 10 metres apart.
- Trees in HSZ have no dead material within the plants crown or on the bole/trunk.
- All accumulated litter, twigs, bark of trees, fallen tree branches and logs should be removed from the area on a regular basis prior to the Bush Fire Season to maintain prescribed bush fire fuel levels detailed above.

The developer is to modify fuel loadings within the BPZ and HSZ on all lots within the subdivision so as to achieve the requirements of the HSZ prior to clearance of conditions of subdivision and maintain until lots are sold.

Removal of the bush fire fuels may be carried out by burning or mechanical means (mechanical means is preferred). If burning is used it must be carried out in accordance with the provisions of the Bush Fires Act and the Shire of Plantagenet Firebreak Notice.

6.4.3 Hazard Reduction Program

Hazard reduction in remnant vegetation areas, building protection zones and hazard separation zones can be achieved by slashing or planned prescribed burning. Property owners have a responsibility to reduce bush fire hazards and maintain properties annually in preparation for summer season. Bush fire fuels in areas outside the BPZ and HSZ including the Ecological Corridor must be maintained by the landowner at a maximum of 6-8 tonnes per ha. The burning of the Ecological Corridor will require the cooperation of all landowners and landowners should seek advice from the local Bush Fire Brigade or the Shire of Plantagenet prior to carrying out any burning. The Shire of Plantagenet can provide advice on appropriate techniques to achieve bush fire hazard reduction for individual properties.

As a guide, property owners should carry-out the following Fire Prevention activities:

Autumn to Winter (May – August)

- Tree pruning – remove lower branches; check that power lines are clear.
- Reduce fuel levels around the house – clear long grass, leaves, twigs and flammable shrubs.
- Ensure petrol and other flammables are safely stored away from the main dwelling.
- Make sure your fire fighting equipment is in good working condition and serviced where required.
- Make sure all residents are aware of your emergency plan including evacuation routes.

Spring (September – November)

- Move woodpiles and stacked timber away from the main dwelling.
- Keep grass short – not to exceed 50mm in height.
- Clean gutters and roof debris.
- Install and maintain firebreaks in accordance with this plan and the annual Shire of Plantagenet Firebreak Notice.

Summer (November – May)

- Water lawns, trees and shrubs near the buildings to keep them green.
- Re-check fire fighting equipment, screens, water supplies and that gutters remain clear.
- Maintain firebreaks in accordance with this Fire Management Plan and the annual Shire of Plantagenet Firebreak Notice

Long Term Precautions

- Ensure firebreaks are prepared in accordance with this fire management plan, the latest Firebreak Notice and any variation to the fire order issued by council.
- 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 future years.
- Make sure that the buildings are safe – fit ‘wire’ fly screens and shutters, fill gaps in roof/wall spaces, fit fire screens to evaporative air conditioners and have them operable to provide a water only supply.
- Give consideration to installing external building sprinkler systems with static water supply and ‘back-up’ power for emergencies.
- Get basic training in fire fighting from your local bush fire brigade or even join your local brigade.
- Join or start a local Bushfire Ready Awareness Group.

6.4.4 Planting of Trees and Vegetation

Planting of new trees and shrubs are not permitted within 6 metres of the centre of any firebreak. Trees planted within the BPZ and HSZ must comply with the

standard outlined in Section 6.4.2 and 6.4.3 respectively. Planting of trees and shrubs must be carried out in such a way as NOT to increase the bush fire risk on any lot.

6.4.5 Dwelling Standards

New dwellings within this site shall be designed and built to conform with:-

- Building Code of Australia
- Australian Standards AS 3959

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 sets out this relationship and Section 2 of AS 3959 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 all Lots is:

Table 1 Summary of Determination of BAL using Fire Danger Index 80

Vegetation Class	Setback from Vegetation (meters)	Slope	BAL	Construction Standard AS 3959-2009	BPZ (metres)	HSZ (metres)
A Open Forest	50	0° - 5°	12.5	S. 3 & 5	20	30

The dwelling on all proposed Lots will comply with AS 3959-2009 BAL 12.5.

As a result of ember attack evaporative air conditioners can be the cause of a fire starting in a building. It is a requirement that the roof unit of an evaporative air conditioner is enclosed in a suitable external ember protection screen. More information is available at www.fesa.wa.gov.au. and in AS 3959.

The boundaries of Building Protection Zones and the Hazard Separation Zones shown in Appendix B are indicative only and will depend up the final size and location of any proposed dwelling. A further reduction in the widths of the Building Protection Zone and Hazard Separation Zone can be achieved by increasing the construction standard of a dwelling. This will result in an increase in cost of building construction.

A landowner or the Shire of Plantagenet (at cost to the landowner) can request a Fire Consultant to re-assess the BAL as part of the Building License Application. A copy of this assessment is to be sent to the Shire of Plantagenet as part of the Building License Application.

BAL – Bushfire Attack Level. A means of measuring the severity of a buildings potential exposure to ember attack, radiant heat and direct flame contact, using increments of radian heat expressed in kilowatts per metre squared, which is the basis for establishing

the requirements for construction to improve protection of building elements from attack by bush fire.

Copies of *The Homeowners Bush Fire Survival Manual and Prepare Act Survive* and Shire of Plantagenet Firebreak Notice and other suitable documentation will be issued to each property owner by the developer on the sale of an allotment by the Developer.

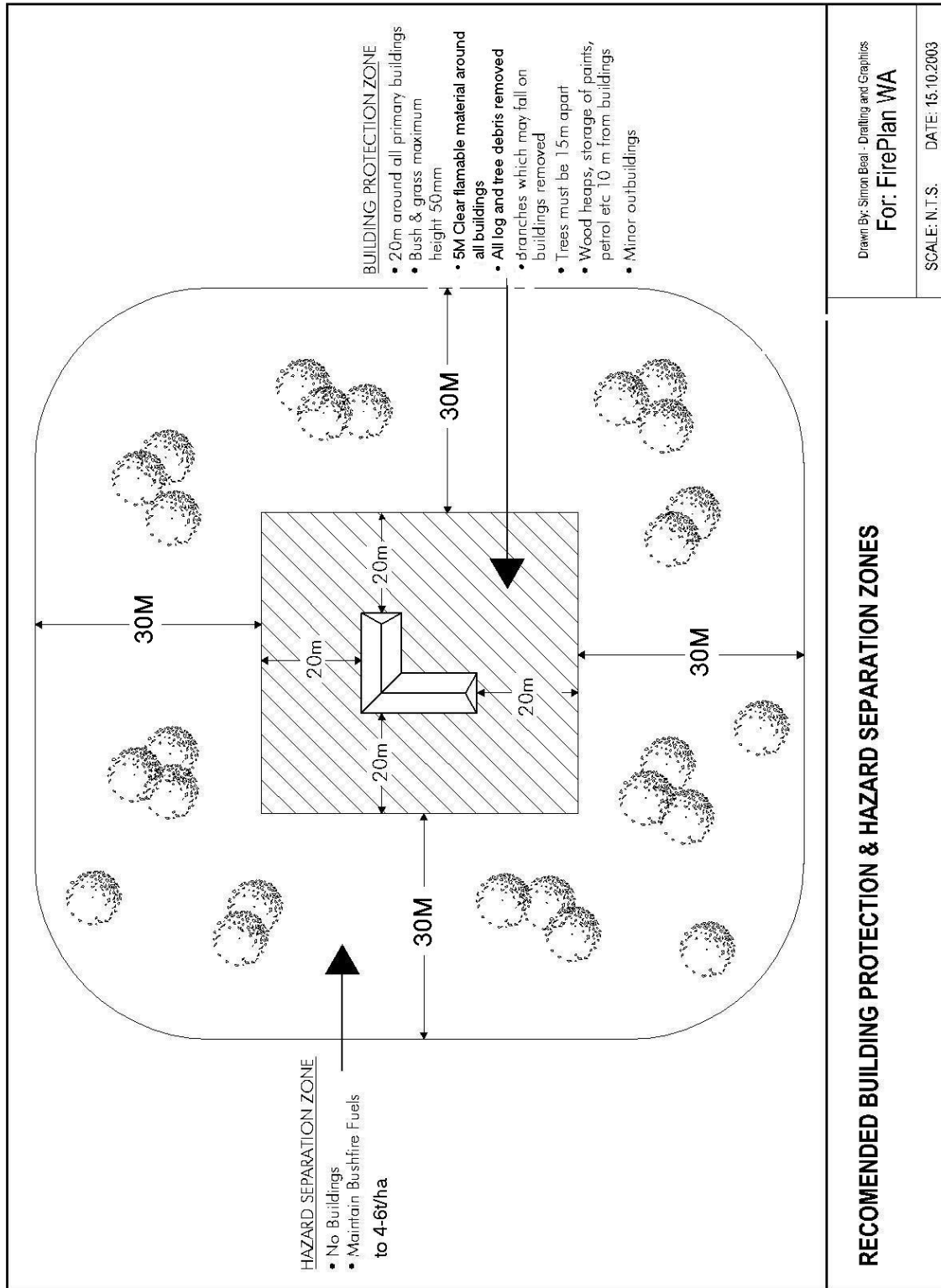
6.5 ELEMENT 5 DESIGN OF DEVELOPMENT

This development is located in an area with bush fire hazard assessment rated as "Moderate" and "Extreme".

The development complies with acceptable solutions A4.1, A4.2, A4.3 & A4.4 there are no special design requirements.

Diagram 3 - Sample Building Protection and Hazard Separation Zones.

Note: The combination of the Building Protection Zone and Hazard Separation Zone may overlap adjoining properties due to the siting of dwellings. The diagram below represents a typical BPZ and HSZ configuration for an individual dwelling.



7.0 SUMMARY

7.1 OVERALL FIRE THREAT

The design of this development and the facilities constructed at the time of development are such that with implementation of this Fire Management Plan, fire threat to persons and property within the subdivision is significantly reduced.

7.2 PROPERTY OWNER'S RESPONSIBILITIES

To maintain the reduced level of risk and threat of fire, the owners/occupiers of 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.

- Maintain private driveways, Fire Service Access and internal firebreaks clear of flammable material on their property by the dates shown on the Shire of Plantagenet Firebreak Notice as detailed in Section 6.2. Maintain Rural Gates.
- Maintain in good order and condition all property fencing and gates ensuring that vegetation does not encroach over the firebreak;
- Ensure all habitable buildings have Building Protection Zones, Hazard Separation Zones, Hazard Reduction, planting of trees/shrubs and revegetation and dwellings are constructed and maintained as detailed in Section 6.4

7.3 DEVELOPER'S RESPONSIBILITIES

Prior to subdivision being given Final approval by the W. A. Planning Commission the developer shall be required to carry out works as described below. Subsequent to Final Approval to subdivide, the developer shall have no further responsibilities to provision of fire fighting facilities on lots which pass from their ownership.

- Lodging a 70A 'Notification' on each Certificate of title of lot affected by this Fire Management Plan. The Notification shall alert purchasers of land and successors in Title of the responsibilities of this Fire Management Plan;
- Supply a copy of each of *The Homeowners Bush Fire Survival Manual and Prepare ct Survive* and Shire of Plantagenet Firebreak Notice and other suitable documentation will be issued to each property owner by the developer on the sale of an allotment;
- Implement the Building Protection Zone and Hazard Separation Zone as detailed in Section 6.4.2;

-
- Install Water supply for fire fighting and access to the Dam as detailed in Section 6.3.2.
 - A caveat is to be placed on the Land Title of the Lot containing the Dam to advise the owner that fire appliances have access to the water at all times.
 - Advise prospective purchasers of a lot that there is a Fire Management Plan new landowners must comply with which may require the removal of vegetation for the installation of the Building Protection Zone around any proposed dwelling.
 - Install and maintain fire service access, rural gates and firebreaks until lots are sold as detailed in Section 6.2.2.

7.4 SHIRE OF PLANTAGENET RESPONSIBILITIES

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

The Shire of Plantagenet shall be responsible for:

- Developing and maintaining District Fire Fighting Facilities.
- Provide advice on appropriate techniques to achieve bush fire hazard reduction for individual properties.
- Maintaining in good order the condition of the district water tanks and the apparatus for firefighting purposes.
- Ensure that the standards detailed in this fire management plan are complied with as a Clearance of Condition of Subdivision.

Appendix A - Development Layout (Not to Scale).

SUBDIVISION GUIDE PLAN
 for Rural Residential Area 9
 Pt. Lot 4853 Porongurup Road
 Porongurup, Shire of Plantagenet

LEGEND

	Subject Land
	Existing Trees
	Existing Buildings
	Existing Lot Boundaries
	Proposed Lot Boundaries
	Existing Roads / Tracks
	Proposed Road
	Creek Line
	Existing Fire Management Track
	Proposed Fire Management Track
	Emergency Water Supply
	Existing Dams
	Unlocked Fire Gate Required
	Unlocked Fire Gate (to be provided if fence is erected)
	Extent of Development Envelope / Building Protection Zone
	Indicative House Site
	Development Exclusion Area / Ecological Corridor
	Bushland Linkage

NOTE
 Structures, fences or firebreaks are not permitted within the Development Exclusion Area.
 All Habitable Buildings in Rural Residential Area 9, to be constructed pursuant to AS 3959.

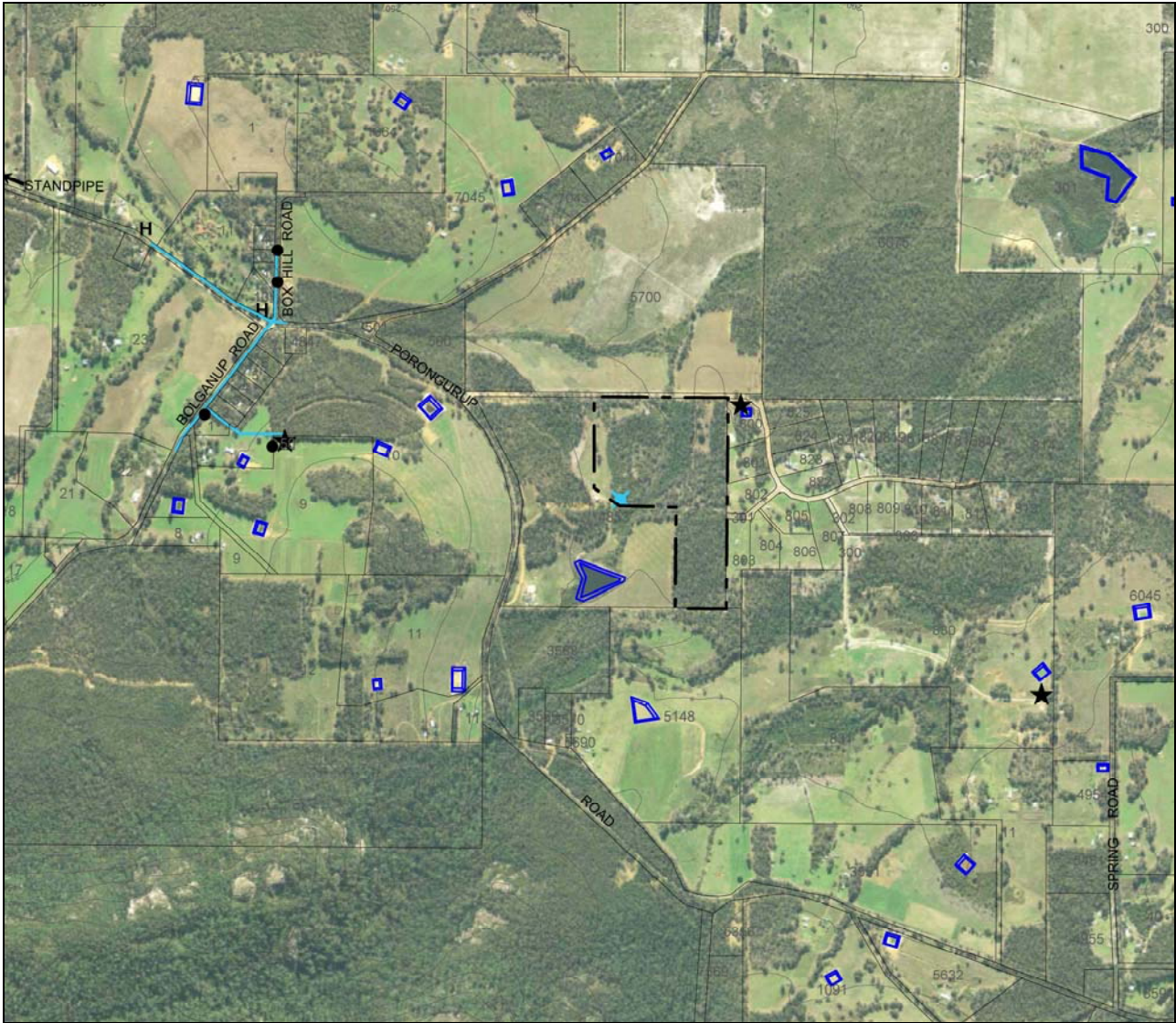
AYTON BAESJOU
 PLANNING
 11 Duke Street
 Albany WA 6330
 Ph: 9842 2304 Fax: 9842 8494







Appendix B Development Envelope Building Protection Zone & Hazard Separation Zone Locations.





Appendix C Water Supplies for Fire Fighting



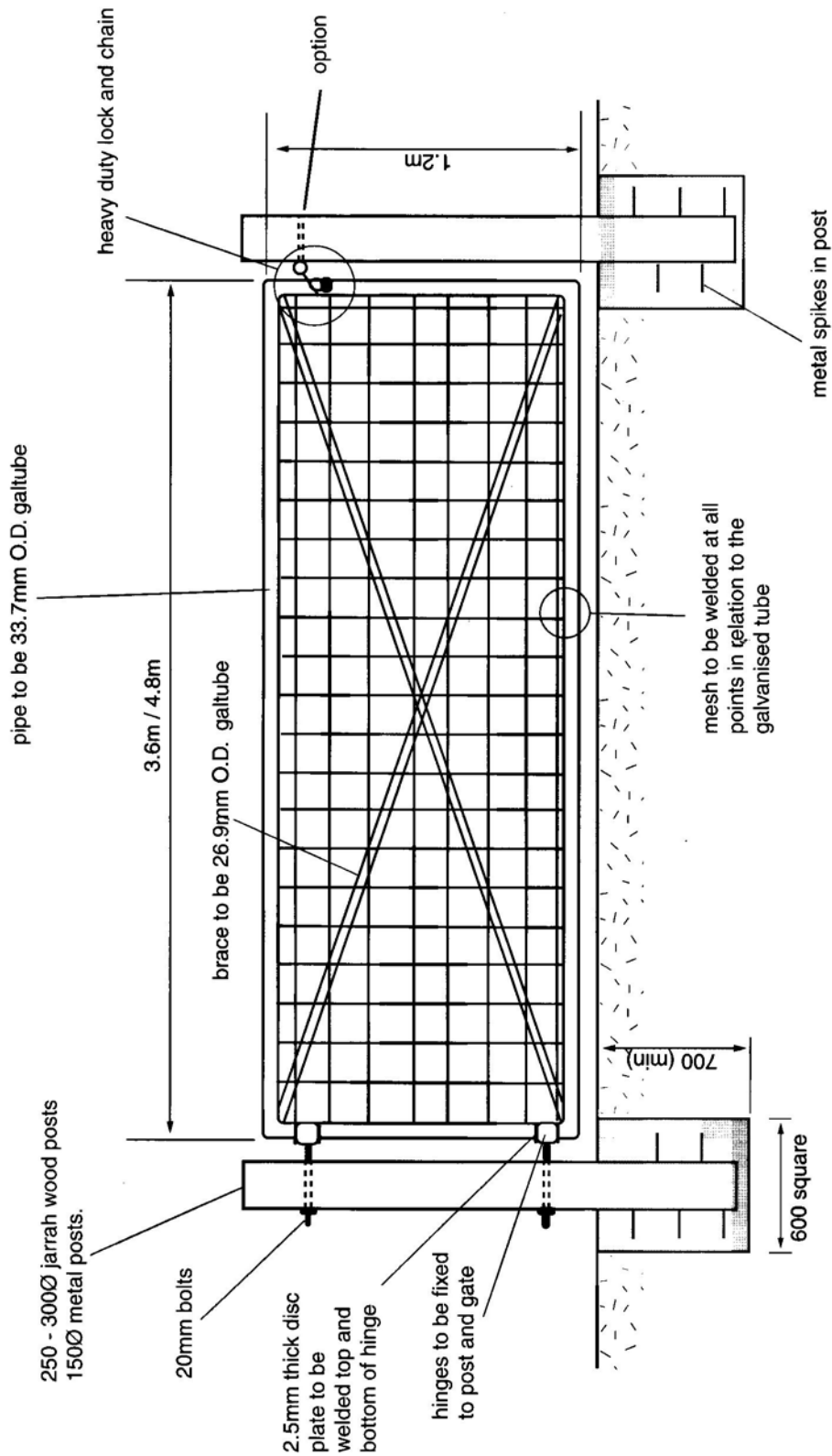
LEGEND

-  Subject Land
-  Existing Fire Hydrant
-  Existing Dams
-  Existing Water Tank
-  Water Supply Point
-  Mains Water Pipes
-  Proposed Water Tank


ORIG A3
SCALE 1:15000



Appendix D Rural Gate Standards - minimum standard



Note: Mesh to be metric mesh 46G5 and galvanised finish complete with fittings.

FIRE MANAGEMENT PLAN

PROPERTY DETAILS: Lot 4853 Porongurup Road, Porongurup.

Local Government: Shire of Plantagenet

Compliance checklist for performance criteria and acceptable solutions

Element 1: Location

Does the proposal comply with the performance criteria by applying acceptable solution A1.1?

Yes No

BPZ & HSZ installed and dwellings constructed to AS 3959-2009

Element 2: Vehicular Access

Does the proposal comply with the performance criteria by applying acceptable solution A2.1?

Yes No

Does the proposal comply with performance criteria by applying acceptable solution A2.2?

Yes No

Does the proposal comply with the performance criteria by applying acceptable solution A2.3?

Yes No

N/A

Does the proposal comply with the performance criteria by applying acceptable solution A2.4?

Yes No

N/A

Does the proposal comply with the performance criteria by applying acceptable solution A2.5?

Yes No

Does the proposal comply with the performance criteria by applying acceptable solution A2.6?

Yes No

Does the proposal comply with the performance criteria by applying acceptable solution A2.7?

Yes No

Does the proposal comply with the performance criteria by applying acceptable solution A2.8?

Yes No

Does the proposal comply with the performance criteria by applying acceptable solution A2.9?

Yes No

Shire of Plantagenet annual Firebreak Notice

Does the proposal comply with the performance criteria by applying acceptable solution A2.10?

Yes No

Element 3: Water

Does the proposal comply with the performance criteria by applying acceptable solution A3.1?

Yes No

N/A

Does the proposal comply with the performance criteria by applying acceptable solution A3.2?

Yes No

Water Tank supplied by Developer

Does the proposal comply with the performance criteria by applying acceptable solution A3.3?

Yes No

Easement to Dam and Caveat on use of water

Element 4: Siting of Development

Does the proposal comply with the performance criteria by applying acceptable solution A4.1?

Yes No

BPZ & HSZ installed and dwellings constructed to AS 3959-2009

Does the proposal comply with the performance criteria by applying acceptable solution A4.2?

Yes No

N/A

Does the proposal comply with the performance criteria by applying acceptable solution A4.3?

Yes No

Does the proposal comply with the performance criteria by applying acceptable solution A4.4?

Yes No

Reduced HSZ

Does the proposal comply with the performance criteria by applying acceptable solution A4.5?

Yes No

N/A

Element 5: Design of Development

Does the proposal comply with the performance criteria by applying acceptable solution A5.1?

Yes No

The development uses acceptable solutions as appropriate to meet the requirements under performance criterion P5.

Does the proposal comply with the performance criteria by applying acceptable solution A5.2?

Yes No

Applicant Declaration:

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: 3/04/2012

Developer:

Full Name: _____ Signature: _____

Date:

PLANNING AND DEVELOPMENT ACT 2005

SHIRE OF PLANTAGENET

TOWN PLANNING SCHEME No. 3

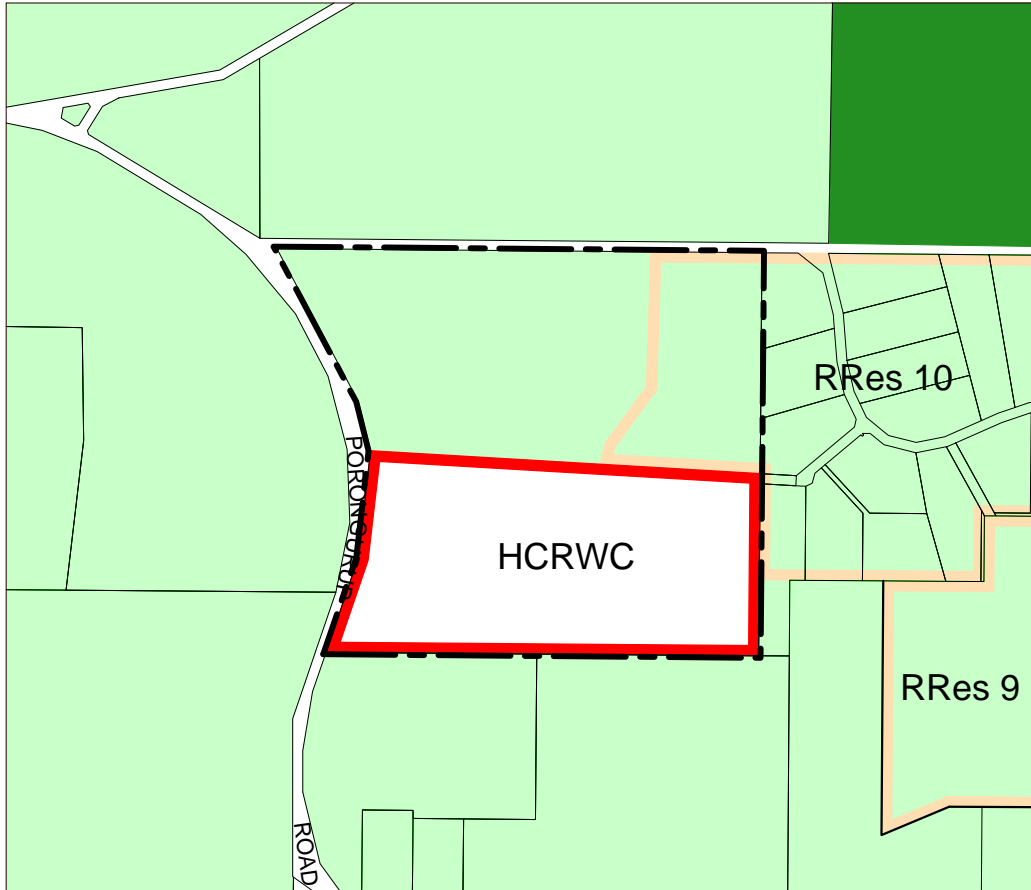
AMENDMENT No. 58

The Plantagenet Shire Council under and by virtue of the powers conferred upon it in that behalf by the Planning and Development Act 2005 hereby amends the above local planning scheme by:

- 1. Rezone the north west portion of Lot 4853 Porongurup Rd, Porongurup, from Rural to Special Site 18.*
- 2. Rezone the eastern portion of Lot 4853 Porongurup Rd, Porongurup, from Rural, Special Site 18 and Rural Residential Area 10 to Rural Residential Area 9.*
- 3. In column (a) of Schedule 5 of the Scheme Text 'Rural Residential zones – Provisions Relating to Specified Areas' within the Locality, deleting 4853 from RRes 10 and inserting 4853 under RRes9.*
- 4. Amend the Scheme Maps accordingly*

SHIRE OF PLANTAGENET TOWN PLANNING SCHEME 3 AMENDMENT NUMBER 58

Existing Zoning



Proposed Zoning



LOCAL SCHEME RESERVES

- RECREATION
- ZONES**
- RURAL
- RURAL RESIDENTIAL

- SPECIAL SITE**
Denoted as Follows:
- HC HOLIDAY CHALET
- R RESTAURANT
- W WINE DISPLAY/STORAGE
/RETAIL/MANUFACTURE
- C CLUB

ADOPTION

Adopted by resolution of the Council of the Shire of Plantagenet at the meeting of the Council held on the _____ day of _____ 20_____

Shire President

Chief Executive Officer

FINAL APPROVAL

Adopted for final approval by resolution of the Shire of Plantagenet at the Meeting of the Council held on the _____ day of _____ 20_____ and the Common Seal of the Shire of Plantagenet was hereunto affixed by the authority of a resolution of the Council in the presence of:

Shire President

Chief Executive Officer

Recommended/Submitted for Final Approval

**Delegated Under S.16
of the PD Act 2005**

Date

Final Approval Granted

Minister for Planning

Date