



# Old Folly Plantation Nannup

Development Application Review  
(Prepared for the Shire of Nannup)

Ref 23-018

Ver A

April 2023

**LUSHFIRE & PLANNING**

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Pinjarra WA 6208

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## Old Folly Plantation – Review Summary

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This report relates a development application made by the Forest Products Commission (FPC) to develop a tree farm (pinus radiata plantation) on the site of the old Folly Plantation, Nannup.

Council at its Meeting of the 23rd March 2023, considered the application and resolved undertake a review of the proponents Fire Management Plan with particular reference, to Lot 11 Brockman Highway and to the Urban Development Zone contained in LPS4.

All of the subject land is designated as being bushfire prone. State Planning Policy SPP3.7 (2015) Planning in Bushfire Prone Areas may not be directly applicable to a plantation application as there is no “habitable building” being constructed. However, Clause 67 of the Deemed Provisions still requires Council to have due regard to the suitability of the land for the development taking into account the possible risk of bush fire.

Council has prepared a Bushfire Risk Management Plan that identifies assets at risk from bushfire and their priority for treatment. There is no specific reference in the general recommendations in Bushfire Risk Management Plan to excluding plantations within any prescribed distance from residential areas.

Local Planning Policy 23 Plantations and Agroforestry was adopted in 2020 and discourages new plantations within 3 kilometres of the Nannup townsite. The Local Planning Policy:

- Does not provide any information to explain or justify the 3km buffer distance from the “townsite;”
- Recommended 3km buffer distance does not recognise the existing Urban Development zone; and
- Non-compliance with the Policy is not grounds for refusal of an application, which must be considered in its merits.

The original Folly Plantation was established on the subject land and the adjacent lots in the 1960s. In recent years management on the property has been limited to opportunistic harvesting of self-seeded pine “wildlings” with the majority of the property has been unmanaged.

The application is not a “new” greenfields plantation given the history of the site and the existing areas of plantation vegetation. The bushfire risk on the subject land will be improved with an appropriately managed plantation, in comparison to the unmanaged land.

A Bushfire Hazard Level (BHL) assessment was conducted over a portion of the site and the adjacent land in 2016 as part of the preparation of the Local Planning Strategy. The majority of the area had an extreme bushfire hazard level and this will not change with the proposed plantation. Significantly the land between the townsite and the plantation also still has an extreme bushfire hazard level.

The provision of a clear separation zone between the vegetation hazard and development areas provides the simplest form of bushfire management. The Guidelines for Plantation Fire Protection 2011 recommend that there be a 1km buffer between plantations and local development areas being residential, rural residential or special use zones. Where a plantation is less than 1km then additional fire management measures may be required.

The plantation is setback more than 1km from the townsite boundary but only 450m from the eastern corner of the Urban Development zone in Lot 41. In response to this the applicant is proposing to have a 50m wide fuel reduction buffer along the western boundary.

## Old Folly Plantation – Review Summary

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This buffer will certainly assist in managing a large scale fire run however, it will not prevent spot fires or a fire jumping over the buffer. As there is still more than 1km of land, with an extreme hazard rating, between the plantation and the townsite boundary, a “landscape scale” fire still has the potential to cause significant damage.

Lot 11 Brockman Highway is an elongated triangular lot extending along Brockman Highway for 1,747m. This potentially creates issues due to the proximity of any bushfire hazard on both the subject land to the north and also to the land on the southern side of Brockman Highway. The owners of Lot 11 Brockman Highway are concerned that the proposed plantation will increase the Bushfire Attack Level (“BAL”) assessment rating on their property and that there should also be a 50m firebreak on the southern boundary of the plantation.

State Planning Policy SPP3.7 Planning in Bushfire Prone Areas allows a maximum BAL rating of BAL-29 for development. Any development within Lot 11 is required to be setback 20m from the boundary and the plantation is required to have a 15m wide boundary firebreak. It is only where the slope of the plantation is more than 10 degrees that a development site in Lot 11 might have a BAL rating exceeding BAL-29. As some of the adjacent slopes are between 10 – 15 degrees a BAL-29 rating requires a 42m setback. This only applies to a portion of the boundary and where there is no existing bushland within Lot 11.

As this location is on a ridgeline and irrespective of the BAL rating, such locations are not recommended for development in terms of fire management. Consequently, it is difficult to justify requiring an additional 7m setback of the plantation.

The constructed access routes within the overall Folly Plantation and the subject land are not gazetted public road reserves. The applicant has confirmed that all plantation management activities will be conducted via Folly Road which extends through the adjacent private land to Dunnet Street. In the absence of any agreement to secure the use of Folly Road then access to the plantation for maintenance, harvesting or emergency management might be restricted.

The Fire Management Plan has been reviewed by the Shire’s Chief and Deputy Bushfire Control Officers and the Shire of Manjimup Community Emergency Services Manager. A number of items have been identified which potentially require modifications to the plan. It is also noted that the Fire Management Plan map does not show the 50m Fuel Reduced Buffer on the western boundary of the plantation

In conclusion the proposed plantation does not increase the bushfire risk to the townsite. A well managed plantation when compared to the existing conditions, will potentially reduce the bushfire risk. The critical bushfire risk is still the land between the plantation and the townsite.

Matters which need further consideration by Council include:

1. Requiring an additional buffer setback between the plantation and the Urban Development zone. However, it is more important that the bushfire hazard on Lot 42 be managed;
2. Whether the use of Folly Road requires formal recognition; and
3. Modifying the Fire Management Plan to show the 50m Fuel Reduction Buffer on the western boundary and addressing the items in Appendix 2.

**Document Control**

Street No	Lot No	Plan	Street Name		
	Various		Folly Road		
Locality	Nannup		State	Postcode	6275
Local Government Area		Nannup			
Project Description		Pine Plantation			
Prepared for		Shire of Nannup			

Ref No	Revision	Date	Purpose
23-018	Draft	26 April 2023	Draft for Review

Name	Geoffrey Lush	Company	Lushfire & Planning
BPAD	Level 2 Practitioner	Accreditation No Expiry	27682 February 2024

**Disclaimer**

The measures contained in this report do not guarantee that a building will not be damaged in a bushfire. The ultimate level of protection will be dependent upon the design and construction of the dwelling and the level of fire preparedness and maintenance under taken by the landowner. The severity of a bushfire will depend upon the vegetation fuel loadings; the prevailing weather conditions and the implementation of appropriate fire management measures.

All information and recommendations made in this report are made in good faith based on information and accepted methodology used at that time. All plans are subject to survey and are not to be used for calculations. Notwithstanding anything contained therein, Lushfire & Planning will not, except as the law may require, be liable for any loss claim, damage, loss or injury to any property and any person caused by fire or by errors or omissions in this report.



Geoffrey Lush  
26 April 2023  
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### 1.0 Introduction

#### 1.1 Background

This report relates a development application made by the Forest Products Commission (FPC) under the Shire Nannup Local Planning Scheme (LPS) No 4 to develop a tree farm (pinus radiata plantation) on Lot 1 on Diagram 23683, Lot 4 on Diagram 22291 and Lots 31, 32, 33, 43, 44 & 45 on Deposited Plan 228954, Nannup.

The subject land and adjacent areas, is locally known as the Old Folly Plantation.

Council at its Meeting of the 23<sup>rd</sup> March 2023, considered the application and resolved:

That the motion lie on the table and be presented again no later than the 25 May 2023 Ordinary Council meeting. While "on the table" the Chief Executive Officer is to prepare a report from a bush fire consultant to re-examine the proponents Fire Management Plan (Part 5) of Attachment 11.1.2 with particular reference, but not exclusive reference, to Lot 11 Brockman Highway and to the Urban Development Zone contained in LPS4.

The subject land, Lot 11 Brockman Highway and to the Urban Development Zone contained in LPS4 are shown in Figure 1.

The objective of this report is to assist the Council in its consideration of the development application. A key consideration in this are the provisions of State Planning Policy SPP3.7 Planning in Bushfire Prone Areas, the associated Guidelines for planning in Bushfire Prone Areas (Version 1.4 2021) and Australian Standard AS3959 Construction of Buildings in Bushfire Prone Areas.

This is not a risk management assessment under ISO 31000 Risk Management (2019) or the National Emergency Risk Assessment Guidelines (NERAG) 2020.

The consultant is familiar with the subject land as:

- Part of the subject land and Lot 11 Brockman Highway were within the study area for the preparation of the Nannup Townsite Bushfire Hazard Level Assessment (2016); and
- He assisted with the preparation of the Nannup Townsite Strategy which addressed the potential future development of the site.

The subject land has not been re-inspected for the preparation of this report.

This report is to be read in conjunction with the Council Agenda report for its Meeting held on the 23<sup>rd</sup> March 2023 and associated attachments being:

11.1.1 - Location Map

11.1.2 - Information from applicant

11.1.3 - Submissions

11.1.4 - Further information from applicant

11.1.5- Local planning framework: extract of key documents

11.1.6 - Extract from State Planning Policy 2.5 Rural Planning and Rural Planning Guidelines

11.1.7 - Extract from Planning and Development (Local Planning Schemes) Regulations 2015

11.1.8 - Peer review of Fire Management Plan



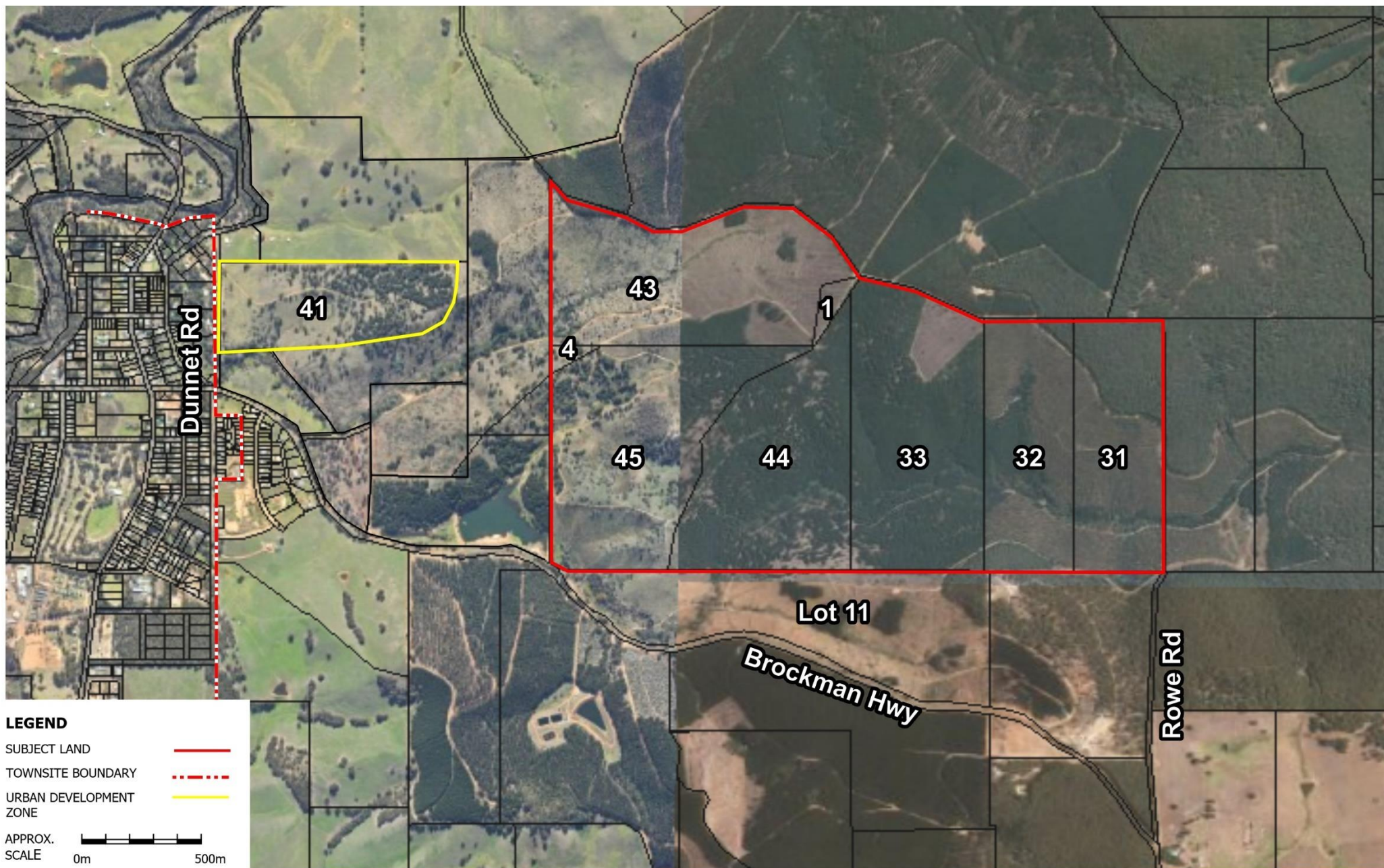
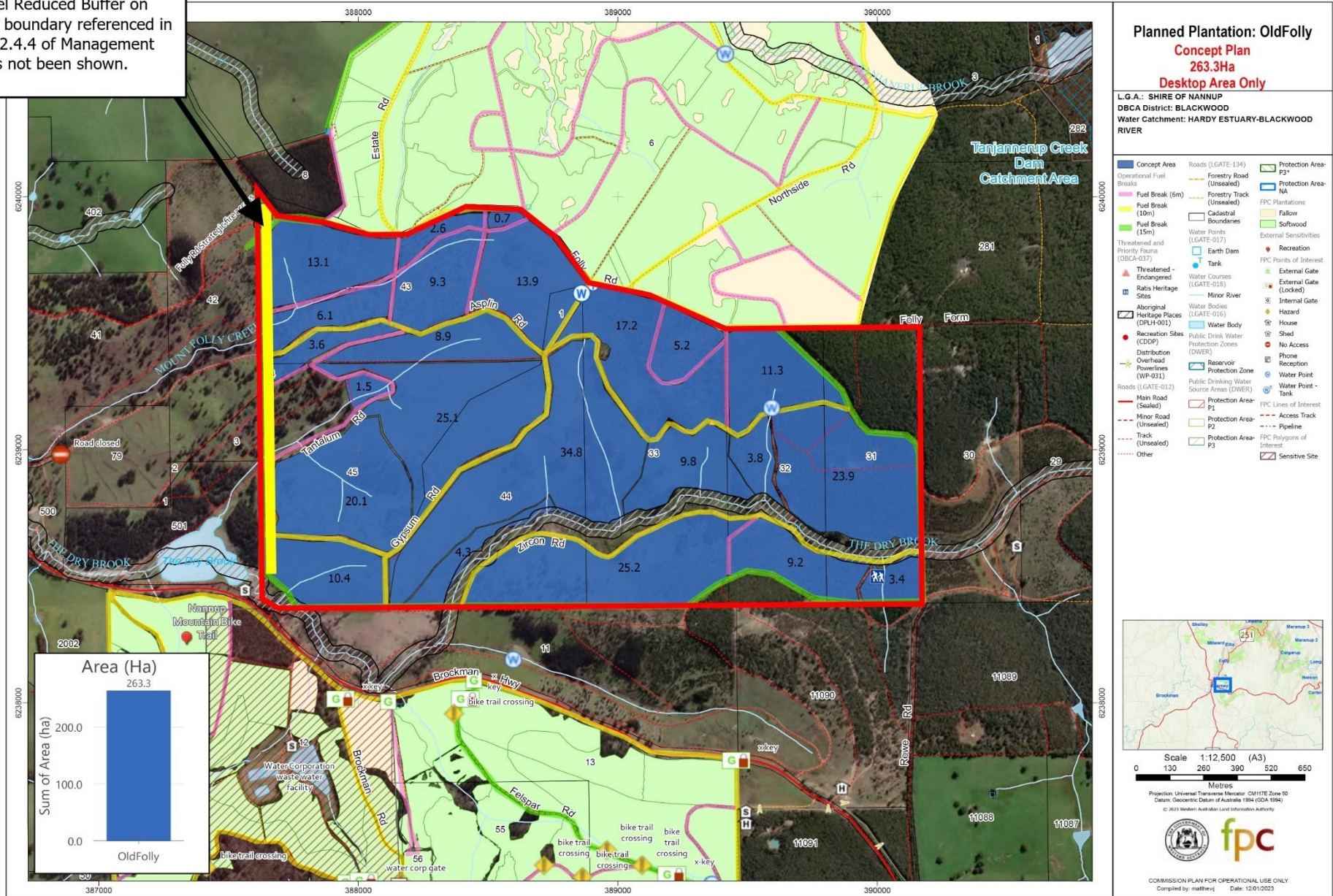


FIGURE 1  
LOCATION PLAN



50m Fuel Reduced Buffer on western boundary referenced in Section 2.4.4 of Management Plan has not been shown.



SUBJECT LAND



Rev	Description
A	Preliminary



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### 1.2 Development Application

The properties have a total area of 341 hectares and the applicant proposes to develop 271 hectares across the eight parcels of land for the purpose of softwood timber production.

The proposed Development Plan is shown in Figure 2.

It is also proposed to instal a 50m Fuel Reduced Buffer on the western boundary of the plantation, but this is not shown on the Development Plan.

## 2.0 Policy Framework

This is not intended to document the complete policy framework but focusses on those policies relative to the Council resolution.

### 2.1 SPP3.7 Planning in Bushfire Prone Areas

All of the subject land is designated as being bushfire prone and this normally triggers the application of State Planning Policy SPP3.7 (2015) Planning in Bushfire Prone Areas for development applications.

The objectives of SPP3.7 Planning in Bushfire Prone Areas include to:

- 5.1 Avoid any increase in the threat of bushfire to people, property and infrastructure. The preservation of life and the management of bushfire impact are paramount.
- 5.2 Reduce vulnerability to bushfire through the identification and consideration of bushfire risks in decision-making at all stages of the planning and development process.

These are currently under review as per the advertised revision of the Policy dated April 2023.

Development applications are required under Sections 6.2 and 6.3 to have a bushfire assessment in the form of a bushfire management plan which includes a Bushfire Attack Level (BAL) Assessment.

Version 1.4 of the Guidelines (Dec 2021) clarifies that a “development site” is defined as that part of a lot on which a **building** that is the subject of development stands or is to be constructed (page 52). Part 10A Schedule 2 of the LPS Regulations (Deemed Provisions) requires a BAL Assessment to be undertaken for any “habitable building” on a proposed development site.

While SPP3.7 Planning in Bushfire Prone Areas may not be directly applicable to a plantation application, Clause 67 of the Deemed Provisions still requires Council to have due regard to:

- (q) the suitability of the land for the development taking into account the possible risk of flooding, tidal inundation, subsidence, landslip, **bush fire**, soil erosion, land degradation or any other risk.

### 2.2 Bushfire Risk Management Plan 2017 – 2022

The Shire’s Bushfire Risk Management Plan (BRM Plan) is a strategic document that identifies assets at risk from bushfire and their priority for treatment. It is endorsed under the State Hazard Plan for Fire (Westplan Fire), recognising that the municipality has areas with a significant bushfire risk.

The risk management processes used to develop this BRM Plan are aligned to the key principles of AS/NZS ISO 31000:2009 Risk management – Principles and guidelines (AS/NZS ISO

31000:2009), as described in the Second Edition of the National Emergency Risk Assessment Guidelines (NERAG 2015).

The Shires Local Emergency Management Arrangements (LEMA), Part A, preparedness and prevention plan (2014), identifies through risk assessment the level of risk for impact by rural fires is 'Major'. The priority for implementation of treatments for rural fires is the highest compared to other hazard events identified within the LEMA plan.

The BRM Plan considers that land tenure contributes to bushfire risk. This is related to the issues of:

- Inconsistent management of fuel across tenure, and
- Unclear management responsibility mostly associated with land vested in other government agencies that have limited land management capability.

The most common fire ignition causes that were able to be determined following investigations were; Burn off fires (22%), lightning (11%), suspicious/deliberate (6%), and vehicles including farming equipment/activities (5%).

The BRM Plan has:

- Local government-wide controls being activities that reduce the overall bushfire risk within the Shire such as its Bushfire Risk Compliance Notice and approved Fire Management Plans.
- Asset-specific treatments which are implemented to protect an individual asset or group of assets, identified and assessed in the BRM Plan as being at risk from bushfire.

The asset-specific treatments are not contained in the public version of the BRM Plan and it is unknown if these make any reference to plantation setbacks

There is no specific reference in the general recommendations in Bushfire Risk Management Plan to excluding plantations within any prescribed distance from residential areas.

### 2.3 Local Planning Strategy 2018

Section 9.3 of the Strategy deals with tree plantations. Action C92 recommends that a Development Application be required for land zoned 'Rural' in LPS4 where the tree farm, for tree crop purposes, has a minimum aggregate planted area of 10 hectares subject to the assessment in accordance with:

- WAPC policies and guidelines;
- 'Guidelines for Plantation Fire Protection'; and
- 'Code of Practice for Timber Plantations in Western Australia (2006)';

There is no specific reference in the Local Planning Strategy to excluding plantations within any prescribed distance from residential areas.

### 2.4 Local Planning Policy 23 Plantations and Agroforestry

Local Planning Policy 23 Plantations and Agroforestry was adopted in 2020. The Policy provisions state that the local government generally discourages:

- Plantations that by virtue of their topography, physical size, their inability to access strategic water supplies for fire-fighting purposes, or their close proximity to vulnerable uses, sensitive uses or habitable buildings, present an unacceptable fire risk or otherwise are unable to satisfy the FESA Guidelines for Plantation Fire Protection; and
- New plantations within 3 kilometres of the Nannup townsite (see Figure 3).

Section 5 relates to location and compatibility with adjacent land uses and states that to reduce potential adverse impacts from inappropriate siting, development or management of agroforestry and plantations, the local government will consider as number of matters including

- The proximity to any land zoned in LPS3 or earmarked in the Local Planning Strategy for residential, rural residential or rural smallholding lots;
- Separation distances between the proposed planting and any “vulnerable land use” or “sensitive use”, including dwellings, holiday accommodation, commercial workplaces (as determined by the local government), or community/recreational area); and
- The visual impact when viewed from State and regional roads, and from main tourist routes within the Landscape Values Area as set out in LPS3;

Section 6 relates to fire management plans and states that the local government:

- Expects that agroforestry and plantation designs do not compromise the fire safety of the local community;
- Expects landowners and plantation operators to have effective mitigation measures and assets to reduce fire risks of their planting and to reduce fire risks on the Nannup townsite and nearby rural living areas (rural residential and rural smallholding); and
- Seeks to reduce fire risks in and around the Nannup townsite. As a guideline, the local government discourages new plantations within the area shown in Attachment 1 (Figure 3) unless the applicant provides increased fire mitigation measures to the satisfaction of the local government.

The Local Planning Policy does not provide any information to explain or justify the 3km buffer distance from the “townsite.”

The 3km buffer distance shown in the Policy does not recognise the existing Urban Development zone.

Non-compliance with the Policy is not grounds for refusal of an application, which must be considered in its merits.



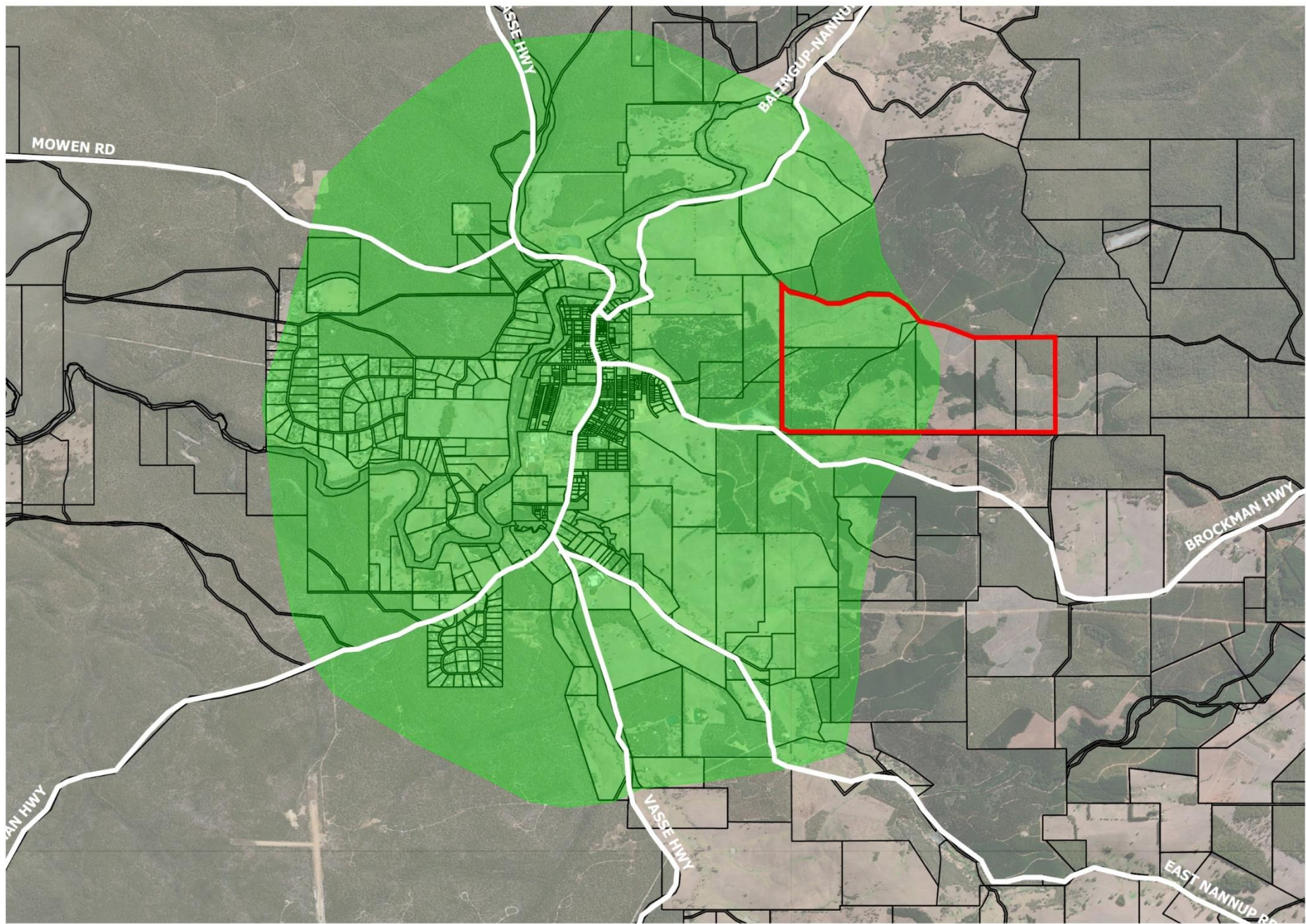


FIGURE 3  
LPP 23 - 3km TOWNSITE BUFFER

SUBJECT LAND



Job No 23-018

Rev Description  
A Preliminary

Date  
17/04/2023



### 2.5 Code of Practice for Timber Plantations 2014

Section 5 of the Code deals with Fire Prevention and Suppression and the recommendations include:

- That a fire management plan should be available for each plantation.
- Compliance with the Guidelines for Plantation Fire Protection issued by the Fire and Emergency Services Authority of Western and local government firebreak notices.
- Promoting coordination and cooperation between plantation managers, CALM, FESA, local government authorities and local volunteer fire brigades in fire prevention, detection and suppression activities.

Appendix 1 of the Guidelines recommends that the fire management plan should contain the following details:

- a) contact names and telephone numbers;
- b) names and addresses of local fire control agencies;
- c) locality plans showing access roads, firebreaks, water points etc.;
- d) methods of access and firebreak maintenance;
- e) specific measures to protect services; e.g. power lines and gas pipelines;
- f) a fire fighting equipment register for the locality and details of cooperative arrangements;
- g) direction indicators to water points, road signs and other features; and
- h) a fuel reduction program, if applicable.

### 2.6 Guidelines for Plantation Fire Protection 2011

Section 2.1 of the Guidelines deals with External Fire Breaks and Setback Distances, noting that the aim of the planning process is to ensure that there is no added risk to existing or proposed structures by the location of the plantation.

This is often achieved by applying appropriate setback distances in the area plan for the plantation and it recommends the following hazard separation zones:

- Between the plantation and an existing or approved habitable building must be a minimum of 100 metres, unless the building has been constructed to an appropriate higher standard.
- Between the plantation and an existing or approved non-habitable structure (i.e. sheds and enclosed storage areas) must be a minimum of 50 metres.
- Plantations developed within one kilometre of the boundary of any "local development" may be required to provide additional fire protection measures as determined by the local government.

Local Development is defined in the Guidelines as:

All land and approved development within a residential, commercial, industrial, semi-rural zone (i.e. special rural/rural residential), special or additional use zone, or similar, plus any approved non-rural based development (i.e. tourist accommodation) within a rural zone, in addition to land identified within a local planning strategy or scheme where such development is likely.

Section 3 sets out the requirements that the Fire Management Plan must contain.



### 3.0 Issues

#### 3.1 Site History

It is understood that the original Folly Plantation was established on the subject land and the adjacent lots in the 1960s. The site was sold in the 1990s and in recent years management on the property has been limited to opportunistic harvesting of self-seeded pine “wildlings” with the majority of the property has been unmanaged.

Aerial photos of the subject from 2004 until 2021 are contained in Appendix 1.

A bushfire impacted a portion of the site on the 1<sup>st</sup> January 2017 with approximately 9 hectares being burnt.

Is the application a “new” greenfields plantation given the history of the site and the existing conditions?

#### 3.2 Bushfire Hazard Levels

A Bushfire Hazard Level (BHL) assessment provides a ‘broad brush’ means of determining the potential intensity of a bushfire in a particular area. Appendix 2 of the Guidelines contains the methodology for the preparation of a bushfire hazard level assessment.

Class A Forest vegetation, including plantations, is classified as having an extreme bushfire hazard level. Any classified vegetation, including grassland, with a greater than 10 degree slope is also classified as having an extreme bushfire hazard level.

The BHL Assessment done in 2016 for the Local Planning Strategy is shown in Figure 4.

Given the extent of the proposed plantation as shown in Figure 2, the existing remnant vegetation, and the slopes, all of the subject land will likely have an extreme bushfire hazard level when developed.

More significant is that the land between the townsite and the plantation also still has an extreme bushfire hazard level.

#### 3.3 Townsite Buffer

The provision of a clear separation zone between the vegetation hazard and development areas provides the simplest form of bushfire management. The level of the bushfire hazard is directly proportional to the distance / setback from the areas of high fuel loadings.

While AS3959 prescribes a BAL – Low rating for land that is more than 100m from bushland vegetation, during a major bushfire embers can travel over a significantly larger distance.

Figure 5 shows the local context of the subject land in relation to the townsite including the townsite boundary, the Urban Development and Tourist zones. It also shows the 1km buffer distance from the townsite boundary, the Urban Development zone and the 3km buffer shown in LPP No 23.

It is noted that the plantation will be setback approximately 450m from the eastern corner of the Urban Development zone in Lot 41. This is allowing for the proposed 50m fuel reduction area on the western boundary of the plantation.



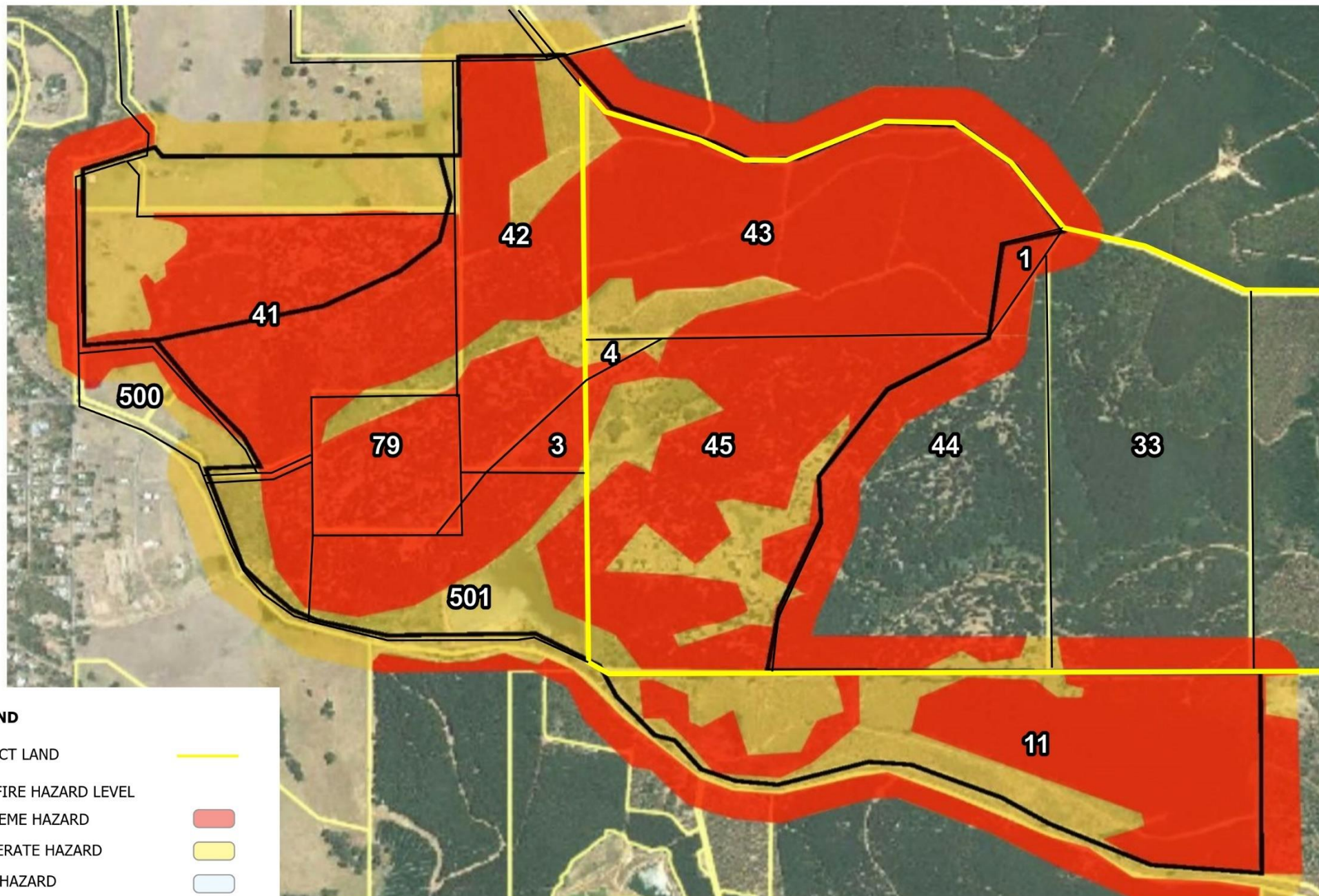


FIGURE 4  
2016 BUSHFIRE HAZARD LEVEL ASSESSMENT



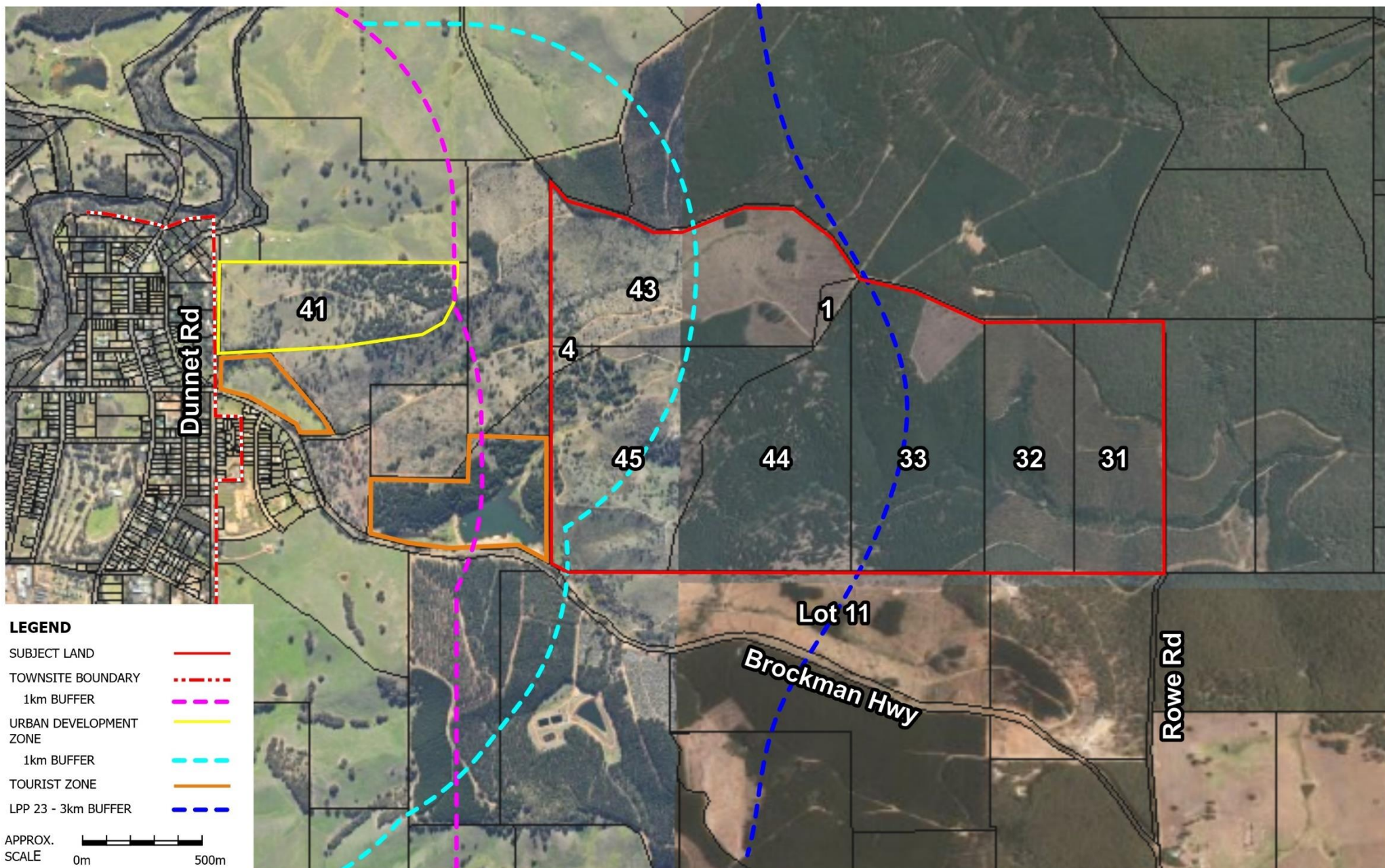


FIGURE 5  
TOWNSITE BUFFERS



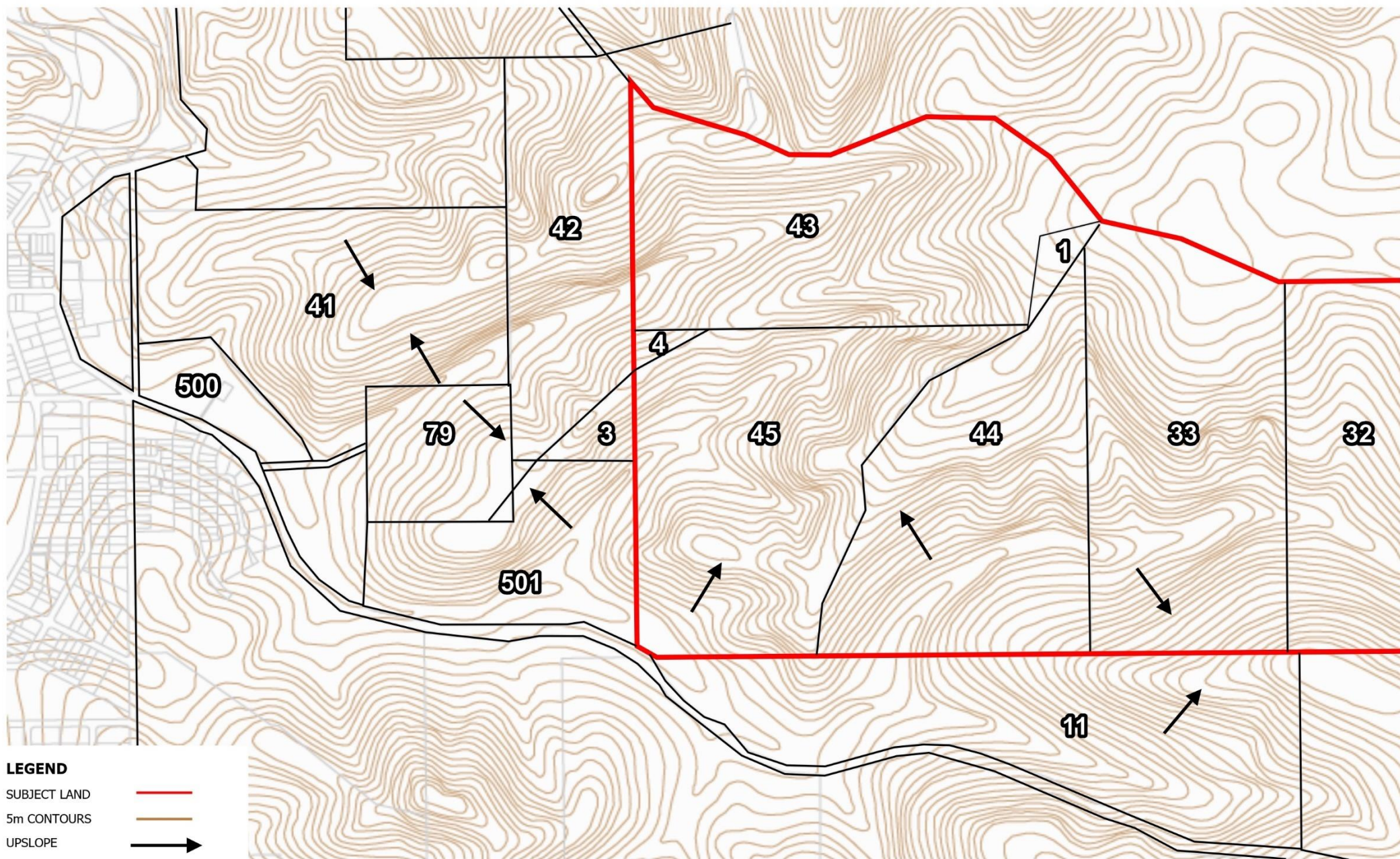


FIGURE 6  
CONTOUR PLAN



In response to the provisions of Local Planning Policy 23 the applicant has submitted that:

It is acknowledged that a portion of the property falls within 3km of the Nannup townsite within which zone plantations are generally discouraged under LPP23. However, the FPC is of the opinion that the benefits to the shire potentially available through extension of the existing trail networks, combined with the return of responsible management on the property may justify an exemption from this component of the policy.

The Guidelines for Plantation Fire Protection 2011 do not prohibit plantations within 1km of a townsite even though this has been widely acknowledged. It recommends that additional fire protection measures as determined by the local government may be required to be provided.

It is also noted that there are existing plantations to the north and south of the site. The plantation on the southern side of Brockman Highway is 800m from the townsite boundary (Dunnet Road) and 500m from residential development in Hitchcock Drive.

Irrespective of the plantation, it is the bushfire hazard on the land between the plantation and the townsite which poses the greatest risk as this extends for more than 1km. In the event that the Urban Development zone is developed, then the proximity of the plantation does pose a significant risk.

Is the provision of a 50m wide fuel reduction buffer on the western boundary of the plantation a sufficient additional fire protection measure?

### 3.4 Plantation Management

It is acknowledged in the submissions that the bushfire risk on the subject land will be improved with an appropriately managed plantation.

This is also reflected in the Guidelines for Plantation Fire Protection 2011 which document the Fire Danger Hazard for the lifecycle of pine plantations from establishment to 30 years. This will vary from low, moderate to high and is dependent upon the level of management including the:

1. Fuel loading level produced at time of harvest.
2. Fuel reduction program outcome.
3. Rate of fuel decomposition.

The bushfire hazard level for the site will not change as this is based upon a worst case scenario including there being forest near surface fuel loads of 25tph.

### 3.5 Lot 11 Brockman Highway

Lot 11 Brockman Highway is an elongated triangular lot having an area of 65 hectares. It extends along Brockman Highway for 1,747m with a variable depth up to 590m. This potentially creates issues due to the proximity of any bushfire hazard on both the subject land to the north and also to the land on the southern side of Brockman Highway.

The owners of Lot 11 Brockman Highway have submitted to Council that:

- The application would increase the Bushfire Attack Level ("BAL") assessment rating on their property; and
- The firebreak on the subject lots along the southern boundary with Lot 11 should be increased to 50 metres.

## Old Folly Plantation

The FPC does not consider creation of a 50m firebreak on the southern boundary to be practical or necessary.

The Bushfire Attack Level (BAL) Assessment measures the severity of a buildings' potential exposure ember attack, radiant heat and direct flame contact in a bushfire event. Each BAL rating corresponds to different construction requirements and provisions. The assessment examines all the vegetation, slopes and fuel loads within a 100m radius of a proposed development site including trees, shrubs, unmanaged grassland and paddock areas. The assessment is issued based upon the site conditions when the inspection is done.

The issue is that any grassland or other vegetation within Lot 11 will influence the BAL assessment and rating. For the purpose of considering the possible impact of the plantation it would be necessary to assume that any development site within Lot 11 has a 20m asset protection zone as prescribed in the Shire's Bushfire Risk Compliance Notice.

The maximum BAL for a habitable building that is acceptable under SPP 3.7 is BAL – 29. The setback distance from Class A Forest and/or a Plantation are shown in the following table. This also documents the BAL rating of a potential development site that is setback 35m from the plantation which recognises there being a 15m wide boundary firebreak and a 20m boundary setback within Lot 11.

It is only where there is a slope of more than 10 degrees within the plantation that a BAL-29 rating may not be able to be achieved.

The slopes along the northern boundary of Lot 11 increase from west to east being upslope in the west and increasing to a downslope of potentially 12 degrees in the east (measured perpendicular to the lot boundary). They potentially exceed 10 degrees along the southern boundary of Lot 33 for approximately 380m where there is grassland adjoining the boundary within Lot 11. Increasing the plantation firebreak in this location to 22m would provide for a potential BAL-29 setback.

The practical issue with this is that any landowner is entitled to plant trees on their property while allowing for a boundary firebreak and this will potentially affect the BAL rating on the adjoining land.

The owners of Lot 11 have indicated that they wish to build chalets on the property in the future. However, there has not been any assessment done to determine if the land adjacent to the boundary of Lot 33 is suitable for this from a bushfire management perspective even with a BAL-29 rating, especially if the chalets are located on a ridge top.

<b>Slope</b>	<b>BAL – 29 Setback</b>	<b>Plantation Firebreak</b>	<b>Boundary Setback</b>	<b>Development Setback</b>	<b>BAL Rating</b>
Upslope & Flat Land	21m	15m	20m	35m	BAL-19
>0 to 5 degrees	27m	15m	20m	35m	BAL-29
>5 to 10 degrees	33m	15m	20m	35m	BAL-29
>10 to 15 degrees	42m	15m	20m	35m	<b>BAL-40</b>
>15 to 20 degrees	52m	15m	20m	35m	<b>BAL-FZ</b>

### 3.6 Access

An important element of any fire management is the provision of suitable access and egress for emergency services. Multiple access routes are normally required in different directions. The topography of the site limits the provision of access.

The constructed access routes within the overall Folly Plantation and the subject land are not gazetted public road reserves.

The application notes that some additional minor construction and upgrade of internal and boundary tracks or creek crossings may be required to facilitate access for ongoing maintenance, along with some surface upgrade once the harvesting phase commences, to allow for the safe and efficient extraction of timber.

The FPC has also confirmed that all plantation management activities will be conducted via Folly Road. However, Folly Road is not a gazetted road reserve and extends through the adjacent private land to Dunnet Street. This has traditionally been one of the main access routes for the overall plantation.

In the absence of any agreement to secure the use of Folly Road then access to the plantation for maintenance, harvesting or emergency management might be restricted.

### 3.7 Fire Management Plan

The FPC's Fire Management Plan sets out the range of mitigation and suppression arrangements that the FPC has in place to manage fire in and around the proposed plantation.

The Fire Management Plan has been reviewed by the Shire's Chief and Deputy Bushfire Control Officers and the Shire of Manjimup Community Emergency Services Manager. A number of queries have been identified which potentially require modifications to the plan and these are referenced in Appendix 2.

It is also noted that the Fire Management Plan map does not show the 50m Fuel Reduced Buffer on the western boundary of the plantation as documented in Section 2.4.4 of the application report.

These matters can be addressed as conditions of approval.



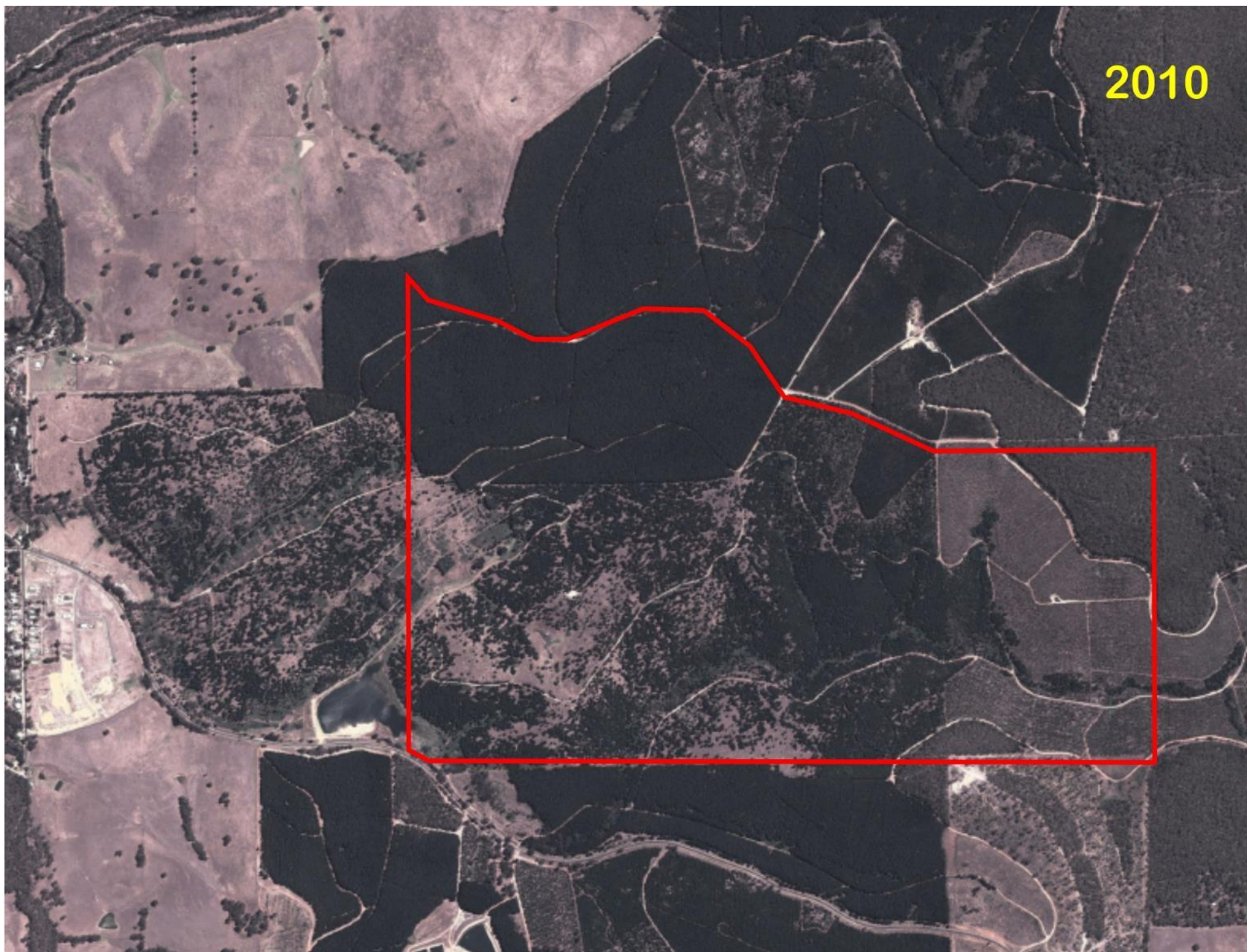
## Appendix 1 – Aerial Photographs

2004





2010





2017





2021



## Appendix 2 – Fire Management Plan Modifications



### **Assessment: Shire of Nannup Firebreak Notice (Bushfire Risk Compliance Notice 2022/2023)**

(5.4 v) Firebreak Notice (notice) states 5 metre vertical clearance for firebreaks, Plantation Management Plan (PMP) states 4.5 metres.

(5.4 vi) (PMP) states that some Compartment sizes are over the recommended 30 Hectares.

(5.4 v) Map shows only a 10m firebreak on the external northern boundary (see attached map).

(5.4 iii) Notice requires Bushfire Management Plan maps to be stored in a red fire cylinders at the main entrances, there is not reference to this in the PMP.

(5.4 vi) Some compartments don't seem to be broken up with 6 metre firebreaks (see attached map). If this is the case, compartment sizes could be over 40 hectares.

(5.4 ii) Very limited information regarding harvesting requirements.

(5.4 ii) Section 3.8 of the PMP would need to meet the requirements of the Notice.

### **Assessment: Guidelines for Plantation Fire Protection**

(4.1) PMP states that some Compartment sizes are over the recommended 30 Hectares.

(4.2) Minimum trafficable surface of firebreaks should be 6 metres PMP states 4 metres.

(4.2) No mention of passing bays as recommended every 200 metres.

(4.3) It is unclear in the PMP if the Water Supplies meets the requirements of the Guidelines for Plantation Fire Protection.

### **Assessment: Zone Response**

Compliant with the Blackwood Valley Zone Response Plan 2021 - 2023

### **Other**

Is "Dry Brook" crossing trafficable throughout the high-risk period?

There is no firebreak or access mapped for the northern side of "Dry Brook".

No Plantation trees should be planted within a 100 metres of a dwelling.

Consideration: The Guidelines for Plantation Fire Protection documents states "Plantations developed within one kilometre of the boundary of a local development may be required to provide additional fire protection measures as determined by the Local Government".

Consideration: The maximum grades on firebreaks must be no greater than one in eight to ensure access by fire suppressions vehicles. The maximum cross fall on firebreaks should not exceed one in thirty-three.

Consideration: New gates minimum 3.6 metres wide.