



The Chief Executive Officer
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Dear Sir or Madam

APPLICATION FOR DEVELOPMENT APPROVAL – PINE PLANTATION, EPPING FARM, WILGA

The Forest Products Commission (FPC) has recently purchased the property known as Epping Farm at 8 Cunningham Road, Wilga and is proposing to develop the site as a pine plantation.

Accordingly please find attached an Application for Development Approval for the proposed plantation along with relevant supporting information including a Plantation Management Plan setting out the proposed management of the site.

In recent years the property has been utilised as a manuka honey enterprise with the majority of the originally cleared area planted to *Leptospermum* species (Tea tree). There has been opportunistic grazing of sheep under lease around the *leptospermum* plantings.

The FPC intends to apply similar management with substitution of pine in place of the *leptospermum*. The FPC will seek to encourage grazing both within the plantation and on discrete areas that are unsuitable for establishment.

The FPC manages all of its plantations in accordance with the Australian Forestry Standard and Environmental Management System ISO 14001. These standards ensure the FPC's management responsibly addresses all relevant factors relating to the environmental, social, cultural and financial impacts of its operations. The FPC's alignment with these standards is regularly independently audited.

The proposal to develop this property as a pine plantation development represents part of the State Government commitment to expand the State's softwood estate thereby ensure sawmills and associated manufacturing businesses have security of resource well into the future. Planting of this property to pine would also generate approximately 16,000 Australian Carbon Credit Units (ACCU's) assisting in progress towards Australia's target of net zero emissions by 2050.

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I thank you for your time in considering this proposal.

Yours sincerely

David Guille
Manager Forest Assets

14 February 2023

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Plantation Management Plan

Epping Farm, Wilga

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All relevant maps and plans are attached.

The following maps and plans are attached:

Map 1: Location Map

Map 2: Concept Map

Attachment 1 - Extract from DBCA Blackwood District Fire Preparedness and Response Plan

Attachment 2 – FPC147 Guidelines for applying operation restrictions to manage fire risk

Attachment 3 – Contractor procedure F1 – Fire Requirements

References:

- *Code of Practice for Timber Plantations in Western Australia*
- *Guidelines for Plantation Fire Protection*
- *Local Authority Firebreak Orders*
- *FPC Plantation Procedures, Technical Specifications & Work Instructions*
- *Code of Practice for the use of agricultural and veterinary chemicals in Western Australia*
- *Forest Products Act 2000 (WA)*
- *Carbon Rights Act 2003 (WA)*
- *Environmental Protection (Clearing of Native Vegetation) Regulations 2004 (WA)*
- *Wildlife Conservation Act 1950 (WA)*
- *Environmental Protection and Biodiversity Conservation Act 1999 (Cwth).*
- *Soil and Land Conservation Act 1945 (WA)*
- *Bush Fires Act 1954 (WA)*
- *Occupational Safety and Health Act 1984 (WA)*
- *Safety and Health Code for Native Forest / Hardwood Logging and Plantation Logging*

Epping Farm - Wilga

1. INTRODUCTION

Epping Farm was purchased by the Forest Products Commission (FPC) in spring of 2022, with a settlement date in early 2023. The FPC is proposing to establish approximately 275 hectares of pine plantation on the property for the purpose of timber production and carbon sequestration.

The Forest Products Commission (FPC) will establish and manage the plantation.

This document outlines the following in relation to this plantation:

1. Introduction
2. Land information
3. Tree Farm Establishment Plan
4. Tree Farm Tending Plan
5. Fire Management Plan
6. Timber Harvesting Plan (interim)
7. Authorisation

2. LAND INFORMATION

2.1 Area

The property is 490 hectares in total and is located immediately to the north east of the Wilga townsite (see Location Map) in the Shire of Boyup Brook.

In recent years the property has been utilised as a manuka honey enterprise with the majority of the originally cleared area planted to *Leptospermum* species (Tea tree).

The property is located in the Wellington Dam Catchment and has an annual average rainfall of approximately 700mm. The property is not in a Public Drinking Water Source Area (PDWSA).

2.2 Locality Map and access roads

A Location Map is attached. It can be seen from this plan that the main access to the proposed plantation area is via Wilga Road East and Cunningham Road.

2.3 Natural features

2.3.1 Significant landscapes, streams, rivers, lakes, ponds, swamps, drains etc

A visual assessment of the property has been completed to identify any significant landscape features.

No significant landscape features have been identified for exclusion from planting on the previously cleared land and *Leptospermum* plantation areas. The general landscape features of the property will be maintained.

There are several lower-level ephemeral streams with some natural vegetation. A buffer of a minimum of 6 metres has been placed on these waterways in accordance with the Code of Practice for Timber Plantations WA. Actual buffer sizes vary from 10 to 50m according to the prevailing landform and soil type (see attached Concept Map). The areas are excluded from the new planting and, where present, the existing native vegetation will be allowed to grow on.

On our current assessment there is approximately 30 ha of cleared land in these creek lines and small wetlands that is unsuitable for pine establishment. The original vegetation is generally flooded gum (*E.rudis*) with an endemic shrub understory.

The property adjoins the McAlinden State Forest.

2.3.2 Principal soil types

The principal soil types consist of duplex soils with sandy clay gravels over medium type clays.

2.3.3 Areas of native vegetation with high or low natural integrity

Forest Type – Jarrah/marri/flooded gum

Extent – there are a number of sections of native vegetation across the property comprising approximately 95 hectares.

Condition – Sections on the southern side of the property on lots 2 and 3944 have healthy upper story eucalypts but no understory to speak of (“parkland cleared”). The two larger islands west of Cunningham Road have higher tree density but are again devoid of understory due to previous grazing management. The northern section of creek on lot 2945 has some mixed quality fringing vegetation.

Pests or diseases – No pests or diseases were recorded during inspections.

Proposed future management – All vegetation will be retained however minimal management will take place due to the degraded nature of the remnant islands. Grazing of the property will be encouraged in the future to reduce grass fuel loads in unfenced remnant areas-

2.3.4 Cultural and heritage values

The following actions have been taken to determine the presence of cultural and heritage sites on the property:

- A search for Heritage Council registered sites has been completed.
- Department of Biodiversity, Conservation and Attractions (DBCA) and/or Department of Planning, Lands and Heritage databases have been checked for registered indigenous sites

No sites were identified on the property. 2 registered heritage sites are located within the Wilga Settlement. It is not expected that the proposed plantation will impact these sites.

2.3.5 Threatened and Priority Species and Ecological Communities

Where activities related to this tree farm are likely to directly or indirectly affect threatened and priority species of flora, fauna and ecological communities, the following Acts, Regulations and Plans will be complied with:

- *Environmental Protection (Clearing of Native Vegetation) Regulations 2004 (WA)*
- *Wildlife Conservation Act 1950 (WA)*
- *Environmental Protection and Biodiversity Conservation Act 1999 (Cwth)*

DBCA's IMB database has been checked. There is no record of threatened or priority species within 1 kilometre of the planting area.

2.4 Improvements

2.4.1 Buildings

There are no dwellings located on the property. There are several sheds on the property that will be retained. A setback of at least 50m will be applied to plantings adjoining these sheds.

There are 3 water tanks on the property that will be maintained to provide a water source for fire suppression and other operational activities.

2.4.2 Roads, bridges, creek crossings

There is an existing, unsealed road/track system throughout the farm that will allow for adequate access during establishment of the tree farm.

Establishment operations will not involve the requirement to construct or upgrade roads or creek crossings.

Some upgrading of road networks is likely to be required prior to the commencement of harvest operations. Where possible these works will take place on existing roads/tracks/firebreaks with appropriate controls in place to manage hygiene and erosion risks.

2.4.3 Fences, gates, powerlines, Communication cables and dams

Fences are located both within and surrounding the property. These fences are of mixed condition with many (including some boundaries) considered poor. The fences will be maintained and improved with the objective of grazing livestock through the plantation area once trees are of adequate size. This will assist in managing grass fuel levels on the property.

Power line easements

There are power lines in the southern and western parts of the proposed plantation area (see Concept Map). A plantation exclusion zone consistent with Western Power guidelines will be left unplanted around this infrastructure. These buffers will also be used as firebreaks.

Communication cables

There are no underground communication cables present within the planting area however there is a Telstra cable located in the northern parts of the property along the Wilga East Road which sits within the external firebreak

Water Supply Pipes

There are no water supply pipes within the proposed planting area.

2.4.4 Sensitive Areas

Identification of sensitive areas has occurred by completing a reconnaissance inspection, interpreting aerial photographs and checking relevant databases. Any sensitive areas identified within, adjacent to and along the access ways to proposed tree farm areas require appropriate precautions to protect them. Sensitivities considered in this process include:

Vineyards
Orchards

Apiary sites
Adjacent National Parks and reserves
Organic Farms
Public Drinking Water catchments
Natural waterways, lakes, swamps etc
Erosion hazard (E.g. runoff on steep slopes)
Close Dwellings incl. Neighbours
School bus stops

The Wilga settlement has been identified as a sensitive site which consists of numerous dwellings and 2 registered heritage sites being the Mill Precinct and Uniting Church.

The FPC intends to install a wider than standard firebreak along the plantation boundaries adjacent to the Wilga settlement to increase protection of the area in the event of a fire. A firebreak of 25m will be left unplanted and maintained as a low fuel buffer through chemical, mechanical and/or grazing treatments.

2.4.5 Wellington Dam Catchment

The property falls within the Wellington Dam Catchment under the South West Regional Water Plan 2010-2030, which aims to protect ground and surface water quality within the catchment. The plantation and its management (as outlined in this document) is expected to positively influence the quality of water flow into this catchment.

3. TREE FARM ESTABLISHMENT PLAN

Tree farms should be located to achieve maximum commercial viability while ensuring that environmental, social, aesthetic and cultural values are not compromised.

3.1 Species to be planted and source of stock

The site is to be planted with *Pinus radiata* (Monterey Pine) seedlings sourced from the FPC Manjimup Nursery.

3.2 Areas to be planted, compartment sizes

The Concept Map details the proposed size and layout of compartments. The map and compartment size will be consistent with the *Guidelines for Plantation Fire Protection (FESA 2011)* and the local shire Firebreak Notices.

3.3 Access roads and firebreaks

Access roads and firebreaks are shown on the Concept map. External firebreaks are 15 metres wide with 6-10 metre wide internal firebreaks in accordance with the *Guidelines for Plantation Fire Protection (FESA 2011)*.

As mentioned above, firebreaks adjacent to the Wilga Settlement will be installed at 25 metres wide.

3.4 Site preparation and planting technique

The leptospermum plantation currently growing on the property will be controlled using an appropriately registered chemical. The site will then be rip mounded at 3m centres with minimal disturbance to topsoil to minimise risk of erosion.

Trees are to be planted by hand. The stocking rate to be applied is 1313 seedlings per ha.

3.5 Direction of planting lines in relation to contours and natural drainage

Planting lines will generally be aligned with the contour to maximise the harvesting of water and avoid erosion.

3.6 Description of weed control methods and buffer zones

Establishment is expected to require both pre and post plant application of herbicide. A range of pesticides registered for forestry use may be utilised. Herbicide will generally be applied in strips over the planting line to minimise chemical usage.

The status of sensitive areas and the requirement to undertake precautionary measures will be reviewed prior to all spray events, to ensure controls are current and appropriate.

All prescriptions to be applied will adhere to FPC specifications.

All operations will be carried out by licensed operators.

3.7 Control of vermin and declared weeds

The site has been checked for the presence of vermin and declared weeds. None were recorded during inspections. Over the life of the plantation the site will be monitored for the presence of pests and weeds with control measures applied as required.

3.8 Clearing of woody vegetation (native or exotic species)

No native vegetation will be cleared as part of the proposed planting. The areas of leptospermum will be controlled using herbicide prior to site preparation. Some larger exotic eucalypts associated with the honey project will require mechanical push-up.

4. TREE FARM TENDING PLAN

4.1 Fertilising schedule

Fertiliser is generally applied to softwood plantations at establishment and after first thinning. FPC staff will monitor the progress of the tree farm over its lifetime and will prescribe fertiliser applications if nutrient deficiencies are identified from the analysis of foliar samples.

4.2 Weed management

Weed status will be monitored on a regular basis in the first year after establishment and on an intermittent basis after that.

It is expected that some second year weed control may be necessary as part of the ongoing maintenance to the tree farm area. All prescriptions to be applied will adhere to FPC specifications.

4.3 Monitoring and contingencies for disease and pests

The FPC is committed to minimising the risk of introduction and spread of pests, diseases and weeds.

Plantings will be monitored on a fortnightly basis during the period September through to January during the first year after establishment and 3-6 monthly in subsequent years. Pests will be controlled as and when required using registered APVMA pesticides and licensed operators operating under all specifications as required by relevant authorities and acts.

4.4 Road and break maintenance

Firebreaks will be maintained by both chemical and mechanical means. Treatments will be designed to minimise the risk of erosion.

4.5 Grazing

In recent years the property has been utilised as a manuka honey enterprise with the majority of the originally cleared area planted to *Leptospermum* species (Tea tree). There has been opportunistic grazing of sheep under lease around the *leptospermum* plantings.

The FPC intends to apply similar management with substitution of pine in place of the *leptospermum*. The FPC will seek to encourage grazing both within the plantation and on discrete areas that are unsuitable for establishment. This activity will be supported by the presence of sheepyards and a shearing shed on the property.

4.6 Firebreak Pruning

Strategic pruning of softwood stems will be carried out on trees to ensure safe fire control access for fire suppression efforts throughout the tree farm and to protect adjoining values where identified during the plantation rotation. Standards will be consistent with the *Guidelines for Plantation Fire Protection*

4.7 Thinning schedule

Pine Sawlog

It is expected that the tree farm will be thinned twice before final harvest. The stocking of trees will be reduced by approximately 50% at each thinning. The thinnings will be from below, meaning that the remaining trees will be the best performing and will be spaced such that growth may be maximised. The schedule of operations will depend on the rate of growth achieved and the market opportunities available during the life of the plantation but are generally scheduled for year 12 and year 20.

Products from harvesting operations will be directed to domestic timber processors. These processors are significant providers of regional employment and assist in giving Western Australia resource security for softwood construction timber.

5. PLANTATION FIRE MANAGEMENT PLAN

The objective of the Fire Management Plan is to establish the infrastructure to prevent fires escaping from or entering tree farms and plantations and for suppression operations in the event of a fire. All fire control activities must adhere to the *Bush Fires Act 1954 (WA)*.

5.1 Landowner property details

Name	Forest Products Commission
Address	Level 2/61 Victoria Street, Bunbury, 6230
Phone Number	9225 5288
Location Number (s)	As per attached plans
Species of Trees Planted	<i>Pinus radiata</i>
Total Area Planted	Approx. 300ha
Previous Land Use and Condition (i.e. pasture, ex bush, ex plantation)	Primarily a leptospermum plantation intended to produce manuka honey. Opportunistic grazing took place around the plantation.
Adjacent Land Use (i.e. farmland, forest, nature res.)	A significant portion of the property adjoins native vegetation (State Forest, Timber Reserve, Water Reserve, and Shire Reserve). The remainder is farmland with the Wilga townsite to the south west.

5.2 Neighbouring property owners

NAME	LOCATION NUMBER(S)
Steven North	Lot 12044
DBCA	Lot 13008, SF 29, SF 25
The Trust CO (Australia)	Lot 8396
DWER	Lot 1
Richard Walker	
Ashley and Sheranie Hoddell	Lot 2496
Bailey James Super PTY LTD	Lot 11819
Kevin Moir	Lot 11287
Railway Reserve	
Jarred Haydn-Smith	Lot 12776
Amy Pack	Lot 4
Susan Retter	Lot 5, 6
Kevin McAfee	Lot 8
Susan Miliauskas	Lot 10, 11
Mark Lange	Lot 12
Chris Butler	Lot 13
Terry Jose	Lot 14
Peter Jose	Lot 15, 16
UCL – Dept of Planning, Lands and Heritage	various

5.3 Local fire agencies

AGENCY	ADDRESS	PHONE NUMBER	CONTACT PERSON/ POSITION
Forest Products Commission	Level 2 Bunbury Tower	9725 5288	Greg Hodgson - Manager Fire Protection or Fire Duty Officer
Department of Parks and Wildlife	Blackwood District	9752 5555	District Fire Coordinator or Fire Duty Officer
Shire Office	Boyup Brook	9756 1200	CEO
Chief Fire Control Officer	Boyup Brook	0427 988 705	Tristan Mead
Fire Brigade	Benjinup	0418 651 088	David Inglis

5.4 Risk of ignition

Potential ignition sources are mainly restricted to lightning strikes, powerlines, adjoining roads, vehicle exhaust sparks and escapes from burning operations on surrounding land.

FPC, working in conjunction with Department of Parks and Wildlife (DPaW or 'Parks and Wildlife' – a division of DBCA) have implemented a comprehensive daily fire management notification system for plantation harvesting operations. All FPC operations also conform with the Department's daily fire risk and operational restrictions.

Please refer attachments:

- *FPC147 Guidelines for applying operation restrictions to manage fire risk*
- *Contractor procedure F1 – Fire Requirements*

5.5 Detection of fires

FPC has a formalised Memorandum of Understanding (MoU) with Parks and Wildlife to ensure that in the event of wildfire, DPaW assists with the protection of FPC plantations located within 3km of DPaW estate. The MoU also ensures that these same plantations are covered by the DPaW wildfire detection system; i.e. aerial spotter flight, manned towers and remote sensing.

Detection of fires may also be undertaken by FPC staff and contractors, neighbours and passers-by.

In the event of all fires, notification should be made via the 000 emergency number. This will ensure fire authorities are alerted for an effective coordinated response.

The FPC Duty Officer should be also be notified on 9725 5288.

The FPC Fire Duty Officers monitor all fires across the Southwest and Great Southern with direct access to the interagency fire surveillance platforms of both DFES and DBCA.

5.6 Location of fire control equipment

The FPC can deploy in excess of 6 fast attacks and up to 3 fully equipped heavy duty fire trucks heavy units to this area in a relatively short period of time. These appliances come with fully trained staff and can be deployed by the FPC Duty Officer in liaison with the local CBFCO or Incident Controller. The closest manned FPC units are located in Collie and these are regularly deployed in every day works in the Boyup Shire. The Collie office holds 3 light units and 1 fully equipped heavy duty fire truck is located in McAlinden which is approximately 15 minutes travel from the Wilga property.

The nearby Benjinup Bush Fire Brigade has access to a Heavy Truck unit and several private fast attacks from neighbouring properties. We are advised that the Shire has 3 graders and 2

loaders, and 4 DFES purpose built firefighting units including 3 trucks and 1 fast attack, all available for use in a fire emergency whether assisting under canopy or not, depending on training and equipment suitability.

It is acknowledged that many brigade volunteers are not currently trained to respond to fire under forest canopy (whether native or plantation species) and that equipment may not be suited to this purpose however it is expected that these resources may be utilised in preventing potential spread into adjoining pastured land.

The FPC has 3 fire trucks (2700Lt) and over 20 fire suppression units (fast attacks and trailer mounted fire appliances) that are staffed during the fire season within the southwest region. The following table provides a breakdown of the location of FPC fire equipment and fire staff

FPC Office Location	Number of fire ready staff	Fire Equipment
McAlinden	-	1 Heavy Duty Tanker (3,000 litre)
Collie	2	2 Slip on 400 litre Light Units
Harvey	3	3 Slip on 400 litre light units
Nannup	8	1 Heavy Duty Tanker (3,000 litre) 8 Slip on 400 litre light units
Bunbury	6	3 Slip on 400 litre light units
Manjimup	9	1 Heavy Duty Tanker (3,000 litre) 3 Slip on 400 litre light units
Sandalwood Rd	-	Trailer mounted fire unit

The FPC also has capacity to access DBCA's fire resources through working arrangements between the two agencies (see attachment 1, proposed plantation will be category 2). DBCA has significant resources available from their closest depot in Kirup which has 5 heavy duty fire trucks and 1 bulldozer with an approximate travel time of 30 minutes.

The FPC is also an associate member of the Forest Industries Federation Western Australia (FIFWA) and the Plantations Fire Response Group. FIFWA supports the responsible and sustainable management of WA forests and plantations and appreciates the fire threat to their resource and broader community and has recognised the importance of a unified approach in the control and management of wildfire near or within the plantation estate.

The industry manages plantations across many local government areas and the Southwest of WA and work together under a formal agreement to integrate and maintain fire suppression capabilities and critical local knowledge of plantations that fire managers can call upon in a wildfire situation.

The FPC also maintains a Duty Officer roster over the prescribed fire season. The Duty Officer is the principal point of contact for deployed crews in coordinated response with fire authorities. The duty officer will liaise closely with the CBFCO/Incident controller over crew deployment & experience, shift changes and specialised equipment needs.

It should also be noted that whenever a forestry operation takes place on the property by a contractor employed by the FPC, the contractors are required to have firefighting equipment onsite. The amount and type of units varies, depending on the type of operation, time of year and operational fire risk. Generally, the minimum is one 400 litre unit per machine. During harvest operations, it is commonplace to have 3 light units and a heavy duty onsite.

In addition to the above and for your information, the FPC has capacity to support local Brigades fire response with funds to provide additional equipment that can assist with an initial effective response.

5.7 Initial response on fires

Upon detection of a fire on or threatening the property the FPC Duty Officer will immediately dispatch rostered and otherwise available suppression resources. These resources will deploy under the direction of the controlling authority with the primary objectives of minimising the potential impact on the plantation and preventing the fire spreading onto adjoining land. The FPC Duty Officer will determine whether to request assistance from DBCA and/or the Plantation Fire Response Group dependent upon the prevailing fire danger, ignition point and initial fire behaviour.

It should be noted that initial rates of spread for fires in plantations can be up to 75% lower than those for open pastures due to the influence of tree canopy on wind speed.

It is noted that many brigade volunteers are not currently trained to respond to fire under forest canopy (whether native or plantation species). Training in plantation firefighting is currently underway and FPC is working with DFES and FIFWA to provide training material and make it available to relevant parties.

Initial attack on a fire will be determined by fire behaviour, weather conditions and fuel structures. It is proposed that the Incident Controller with support from experienced FPC staff, will assess each fire, against the following values in order of priority and initiate a coordinated response with the appropriate fire management structures to achieve these objectives.

1. Human life.
2. Community, State assets & infrastructure,
3. Rural property and infrastructure
4. Cost of suppression in relation to values threatened.

With fire behaviour and values in mind response strategies should follow this order of priority as a guide;

1. It is recommended that aerial assistance is requested immediately for fires on or in the immediate vicinity of the property when the prevailing fire danger is Very High or above.
2. Direct attack on head fires by ground and air resources where Head Fire Rate of Spread (HFROS) and safe access allows.
3. Parallel attack by extinguishing flank fire working towards the head fire;
4. Limit fire spread to pre-determined internal strategic firebreaks.
5. Limit fire spread to compartment breaks;
6. Limit fire spread to property boundary firebreaks;
7. Fall back to neighbouring properties, roads or where fire can be safely extinguished.

The FPC has several very experienced Fire Duty Officers and maintains its own in-house duty officer roster during the fire season. The duty officer is the principal point of contact for all enquiries and in the event of a fire, the key responsibility of the Fire Duty Officer is to liaise with the incident management team and other agencies on:

- Suppression strategies
- crew deployment;
- crew experience;
- shift changes and
- specialised equipment needs.

The FPC also has staff included in the DBCA roster for fire emergency availability (FEA). These staff fill planning roles at the control point, or operational roles forward of the control point, such as Operations Officer, Divisional Commander or Sector Commander.

5.8 Fire management maps

Fire management maps will be prepared annually to reflect current planting and contact information. Maps will be stored in waterproof tubes at property access points. Copies of Fire Management Maps will also be made available to the Fire Control Officer.

5.9 Firebreaks

External firebreaks are planned to be 15 metres wide and internal breaks 6 or 10 metres wide as shown in the attached Concept Fire Management Map. Firebreaks will be constructed and maintained in accordance with Shire Regulations and the *Guidelines for Plantation Fire Protection*.

Planting compartments have been designed to ensure that no point within the plantation will be more than 300m from an access point (firebreak or other).

Fire breaks will be maintained to be free of flammable material with a minimum 4 m trafficable width and 4.5 m vertical clearance.

The maximum grades on fire break will be no greater than 1 in 8 with the maximum cross fall not exceeding 1 in 33. The slightly undulating nature of the property makes this readily achievable.

There are no 'no through roads' included in the plantation design.

Firebreak maintenance will be completed annually. Treatments may include spraying or grading as well as pruning of edge trees depending upon specific circumstances.

5.10 Method of road, track and firebreak maintenance

The FPC will maintain firebreaks during September/November period each year to ensure they meet appropriate standards leading into each fire season. Where grazing or herbicide applications are ineffective a graded mineral earth break will be programmed to provide safe access around the plantation during summer months and the high fire risk period.

5.11 Water supplies

As part of the infrastructure onsite, water points will be maintained to provide permanent water within a maximum 20 minute turnaround time for fire within the plantation.

There are in excess of 20 dams and 3 tanks onsite ranging from 25,000 litres to 100,000 litres that will be maintained as available for use for emergency fire suppression efforts (see Concept Map).

The dams onsite will be assessed in late Summer to gauge which ones are suitable for future water points accessible by fire trucks.

Dams will be monitored as the plantation develops to determine if additional work is required to maintain reliable water supply.

5.12 Direction indicators of water points, road signs and other features

Plantation identification signage will be erected at key entry points around the property to facilitate effective incident reporting.

All water sources including dams, tanks suitable for fire suppression use will be signposted with directional markers. A laminated Fire map with these details will be also located at the entrances to the plantation area within the standard industry gate canister (Red).

5.13 Measures to protect infrastructure, powerlines, gas pipelines and Communication Cables

Set backs from infrastructure will be established in accordance with the *Guidelines for Plantation Fire Protection 2011*

- 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 minimum of 50 metres.

Representative setbacks are illustrated in the attached Concept Fire Management Map however distances will be confirmed by on ground physical measurement prior to establishment.

40m and 20m easements will be left around power lines in accordance with line ratings as per guidelines.

5.14 Surrounding fuels

Surrounding fire fuels consist of broadacre grazing paddocks, and native vegetation. Fuel reduction burning of the surrounding native vegetation on or adjoining the property may need to be considered with adjacent private landowners into the future. Where DBCA tenure adjoins the plantation FPC managers will liaise closely to ensure rotational burning programs are maintained to keep fuel levels to an acceptable level with FPC contributing financially to achievement of this outcome.

Most of the native vegetation stands on the property are effectively parkland cleared with a Eucalypt overstory and a mixed grasses understory (i.e.. the endemic understory has been grazed). FPC will consult regularly about the need for cool prescribed burns in spring in relevant locations to reduce grass fuel loads in these parkland cleared areas. Most of the native vegetation areas are unfenced and stock have access to reduce grass levels.

6. TIMBER HARVESTING PLAN

6.1 Location of harvesting operation

Harvesting operations will take place over the entire area of the plantation but be staggered according to the proposed establishment timelines and the pine sawlog management schedule as set out below. Extraction tracks and cartage routes will be determined prior to harvesting being due, in consultation with the Shire and in accordance with industry standards.

6.2 Timetable (to be updated at time of operations)

First thinnings will occur when the tree farm is approximately 12 years of age, and approximately 20 years for the second thinning. Final harvest should occur around age 30.

6.3 Harvesting operations

In the first thinning every 5th row (E row) will be removed to allow access for the harvester. Trees will then be selectively removed to achieve the desired stocking. The second thinning will also be a selective process and the final clearfall, will see all the trees being removed.

Harvesting will generally be carried out using conventional timber harvesting equipment which currently consists of machine harvesters felling the trees, extraction by forwarders and loading on to trucks.

6.4 Machinery and transport

The length of time until the planned final harvest means that it possible that technological innovations may alter industry standards.

The current standards are as follows;

- Machine harvesters - tracked excavators fitted with a felling/debarking head
- Forwarders - all wheel drive rubber tyred tractor
- Truck configurations – it is expected that haulage operations would utilise b-double or pocket road trains dependent on trafficability and access of sites as well as Shire and Main Roads WA restrictions

6.6 External Road Management

Access to the site for both light and heavy vehicles is directly from Wilga East Road and Cunningham Road. During the establishment and maintenance stages of the plantation it is unlikely that any damage will occur to the running surface adjacent to the entry points. However, when harvesting takes place with numerous heavy haulage trips, some damage to the running surface may occur adjacent to the entry point.

The FPC would propose to enter into a road use agreement with the Shire including coverage of harvesting traffic management measures and a commitment to rectification of any undue damage to public roads caused by harvesting operations and or movement of machinery associated with the plantation (based on pre and post operation road condition inspections)

During the establishment phase, it is projected that the site will be visited by 3 semi-trailer trucks for both carrying machinery and for carrying seedlings in each year. During harvesting operations, the site could have up to 9 B-double truck visits per day. Weights for the B-double trucks can reach up to 80 tons.

The FPC will provide notice to the Shire of Boyup Brook at least three months prior to any harvesting commencing.

6.7 Environmental safeguards

Harvesting operations will comply with all aspects of the *Code of Practice for Timber Plantations in Western Australia*.

Roads will be maintained during harvesting operation to minimize erosion and preserve water quality.

The risk of introducing pests or diseases via harvesting activities will be assessed prior to harvesting and appropriate hygiene measures will be adopted.

6.8 Safety

All associated operations will be as safe as possible and comply with *Occupational Health and Safety* and the *Safety and Health Code for Native Forest/ Hardwood Logging and Plantation Logging* will be observed.



APPENDIX

7. AUTHORISATION

Prepared by:

Matt Jones

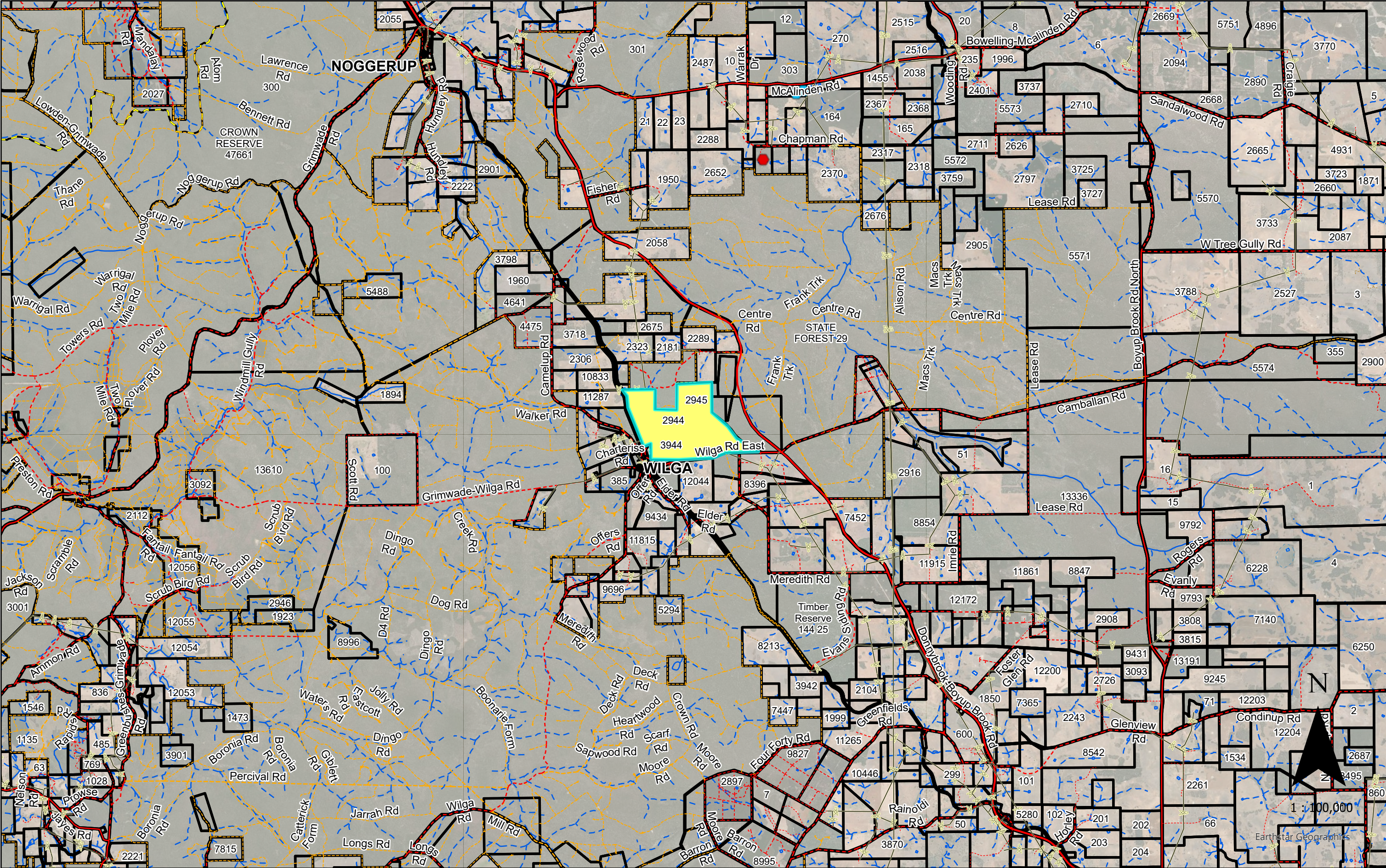
November 2022

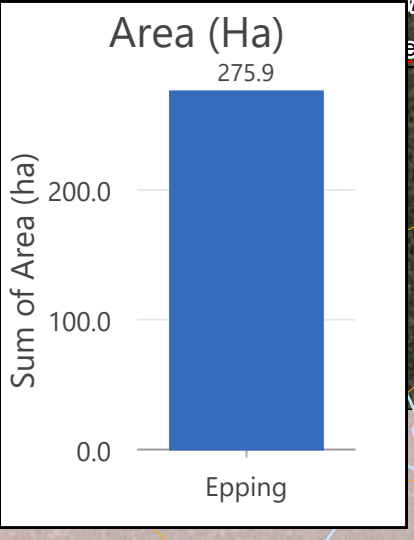
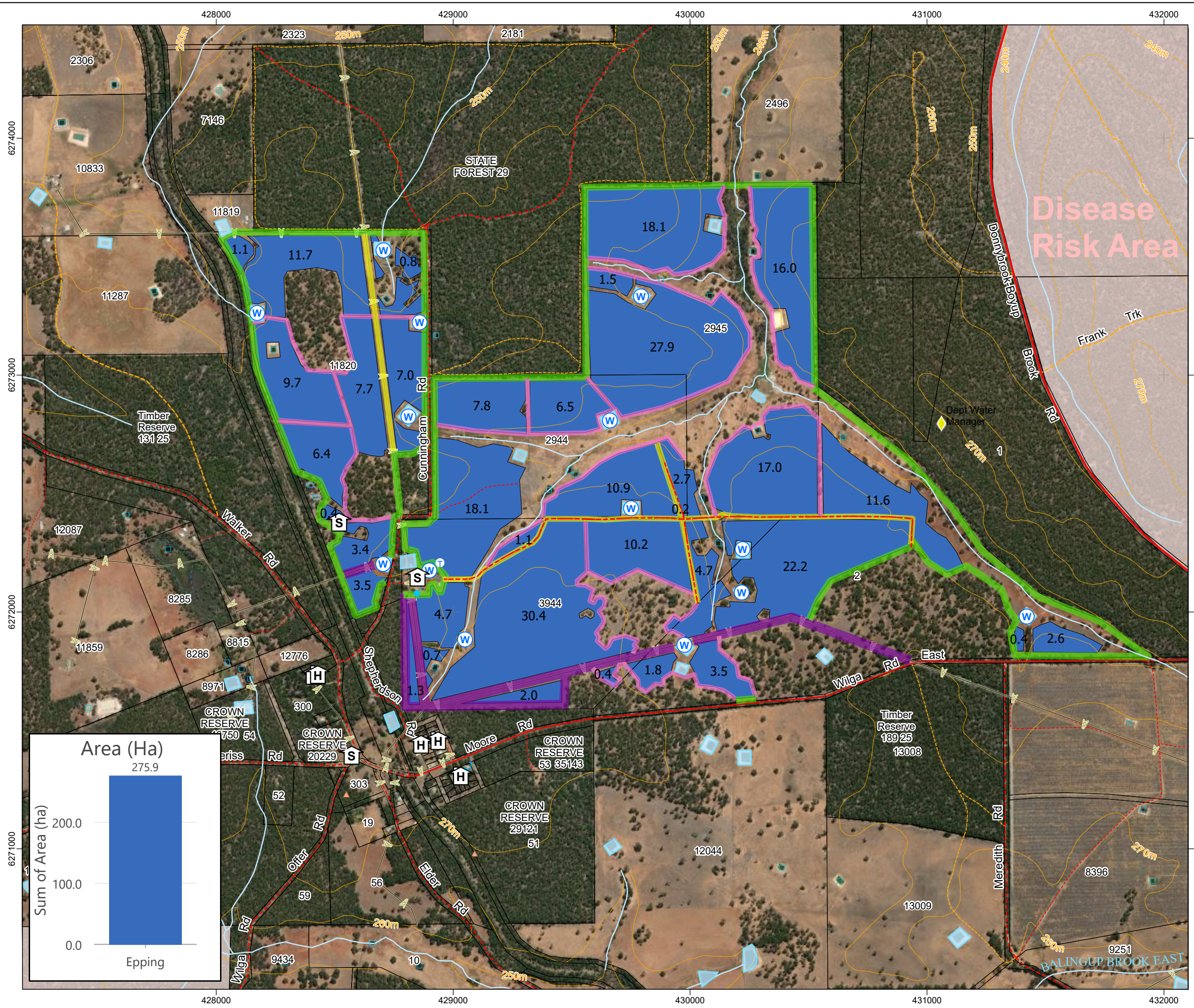
Approved by Manager, Forest Management:

A handwritten signature in black ink, appearing to read 'Dina Fild'.

10/3/2022

Epping Farm Location Plan





Epping

275.9 Ha

Desktop Plan Only

L.G.A.: SHIRE OF BOYUP BROOK / SHIRE OF DONNYBROOK-BALINGUP

DBCA District: BLACKWOOD

Water Catchment: HARDY ESTUARY-BLACKWOOD RIVER / WELLINGTON DAM-COLLIE RIVER

<ul style="list-style-type: none">Concept AreaExternal Sensitivities<ul style="list-style-type: none">OtherFPC Points of Interest<ul style="list-style-type: none">HouseShedWater PointFPC Lines of Interest<ul style="list-style-type: none">Access TrackOperational Fuel Breaks<ul style="list-style-type: none">Fuel Break (6m)Fuel Break (10m)Fuel Break (15m)Fuel Break (20m)Threatened and Priority Fauna (DBCA-037)<ul style="list-style-type: none">Threatened - VulnerableDistribution Overhead Powerlines (WP-031)Roads (LGATE-012)<ul style="list-style-type: none">Main Road (Sealed)	<ul style="list-style-type: none">Minor Road (Sealed)Minor Road (Unsealed)Track (Unsealed)Roads (LGATE-134)<ul style="list-style-type: none">Forestry Road (Unsealed)Forestry Track (Unsealed)Cadastral BoundariesWater Points (LGATE-017)<ul style="list-style-type: none">Earth DamTankWater Courses (LGATE-018)<ul style="list-style-type: none">Minor RiverWater Bodies (LGATE-016)<ul style="list-style-type: none">Water BodySwamp/WetlandRelief (Contours)<ul style="list-style-type: none">Contours: 10m Intervals	<ul style="list-style-type: none">Public Drinking Water Source Areas (DWER)<ul style="list-style-type: none">Protection Area-P1Protection Area-P2Protection Area-P3Protection Area-P3*Protection Area-NAForest Disease Risk Areas (DBCA-024)External Sensitivities<ul style="list-style-type: none">OtherFPC Points of Interest<ul style="list-style-type: none">HouseShedWater PointWater Point - TankFPC Lines of Interest<ul style="list-style-type: none">Access TrackExternal Sensitivities<ul style="list-style-type: none">Other
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Scale 1:15,000 (A3)

0 150 300 450 600 750

Metres

Projection: Universal Transverse Mercator CM117E Zone 50
Datum: Geocentric Datum of Australia 1994 (GDA 1994)
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Compiled by: matthewj Date: 6/12/2022

3.3.3 DBCA Suppression Response to Bushfire on or near FPC Plantations

SCOPE

These response arrangements are applicable to the management of bushfires on, or threatening, FPC plantations in the South West Land Division of Western Australia. This includes all and or parts of the Swan, South West, Warren, South Coast, Wheatbelt and Mid-West DBCA Regions (as shown below in Figure 2).

Four plantation categories and their corresponding response arrangements which are to be considered by DBCA Duty Officers upon notification of a bushfire incident are outlined below.

Categories 1 & 2 are applicable only in the Swan, South West and Warren DBCA Regions.

Categories 3 & 4 are applicable across all DBCA Regions within the South West Land Division as described above.

CATEGORY 1 – BUSHFIRES IN FPC PLANTATIONS ON DBCA MANAGED LAND

Parks and Wildlife is responsible for fire management including bushfire for all fires on, or threatening, DBCA managed lands (including Executive Director freehold land). The department will respond in a timely and adequate manner in accordance with legislation, State priorities and interagency arrangements, and to a degree that is appropriate to the:

- Safety of fire management personnel
- Values at risk
- Prevailing and forecast weather
- Availability of resources
- Cost of suppression operations
- Likelihood of long-term impact or net gain to the environment
- The nature of any pre-existing response arrangements

Relevant DBCA Duty Officer to notify FPC Duty Officer as soon as practicable.

CATEGORY 2 – BUSHFIRES IN FPC PLANTATIONS WITHIN 3 KILOMETRES OF BUT NOT ON DBCA MANAGED LAND

The landowner and the Local Government Authority (LGA) are responsible for fire management and bushfire suppression.

Includes both Sharefarm plantations, and plantations established on land purchased by FPC.

The suppression response will be as for Category 1.

Relevant DBCA Duty Officer to notify FPC Duty Officer as soon as practicable.

CATEGORY 3

- a) **BUSHFIRES IN FPC PLANTATIONS GREATER THAN 3 KILOMETRES FROM DBCA MANAGED LAND WITHIN THE SWAN, SOUTH WEST AND WARREN REGIONS**
- b) **BUSHFIRES IN ALL FPC PLANTATIONS OUTSIDE OF THE SWAN, SOUTH WEST AND WARREN REGIONS**

The landowner and the LGA are responsible for fire management and bushfire suppression.

The relevant DBCA Duty Officers may or may not dispatch suppression resources based on a request from the LGA Chief Bushfire Control Officer (CBFCO).

Relevant DBCA Duty Officer to notify FPC Duty Officer as soon as practicable.

CATEGORY 4 – BUSHFIRES IN PRIVATE PLANTATIONS

The landowner and the Local Government Authority are responsible for incident management and suppression. DBCA **do not** have any bushfire suppression agreements with any private plantation owners.

Any response will be based on requests from the LGA CBFCO.

Note: In all the above categories the response will also take into consideration guidance given in the DBCA Fire Management Policy 19, and the various DBCA Regional and District Fire Preparedness and Response Plans.



Figure 2: South West Land Division of Western Australia

3.4 Other Fire Response

3.4.1 South West Response Zone

When active between 1st December and 31st March 0800-1800, there will be an immediate response from Parks and Wildlife for fires occurring on CALM Act tenure.

Perth hills and South West softwood plantations					
Fire danger index (JFDI)	0-60	61-100	101-140	141+	LGA harvest and vehicle movement ban
High risk operations (all steel tracked machines, harvesters, excavators, bull dozers, and chainsaws)					
Low site fire hazard					
High site fire hazard					
Extreme site fire hazard	No machine operations to occur on these sites from December 15th to March 15th without Strategic Asset and Fire Managers approval				
Medium risk operations (rubber tyred/tracked machines including; graders, skidders, harvesters, forwarders, front end loaders, infield chippers on cleared site)					
Low site fire hazard					
High site fire hazard					
Extreme site fire hazard					
Low risk operations (graders, light vehicles and trucks on formed roads and spraying activities)					
Low site fire hazard					
High site fire hazard					
Extreme site fire hazard					

Key

Contractors must meet the following requirements prior to commencing work:

	No restrictions
	Operator within phone/radio contact with Supervisor (Supervisor in phone contact with DBCA Duty Officer and FPC).
	Minimum of 1 light unit per machine
	Minimum of 2 light units on site
	Compulsory grab tank (min 400L) attached to forwarder or other approved machine-based suppression capacity on site located within 100m of active machine.
	Minimum of 1 manned (2 operators available) heavy duty fire tank unit, minimum of 1 light unit per machine to be stationed on site, and remain and inspect the site for 1 hour after machine stops work.
	Minimum of grab tank (forwarder) or other approved machine based suppression capacity and a minimum of 1 light unit and heavy duty to be stationed on site and remain and inspect the site for 1 hour after machine stops work.
	Cease operations and inspect the site for 1 hour after machine stops work.
*	Exception - Loading and transporting logs from a cleared break or landing is permitted providing Operator within phone/radio contact with DBCA Duty Officer and FPC Supervisor. Minimum of 2 manned light units to be stationed on site and to remain and inspect the site for 15 minutes after machine stops work.

** Exception - Rubber tyred vehicles travelling along formed roads. Does not include machinery conducting road maintenance.

These restrictions are a guideline only. Senior Operational Manager or Fire Duty Officer may consider further restrictions if conditions change.

Silviculture Operations:

Tracked machines working on cleared sites for establishment purposes may be assessed as Medium Risk Operations subject to approval from the Manager Silviculture and Manager Fire Protection.

Note: These guidelines do not apply to fire suppression activities.

Definitions

Low site fire hazard - Ground prepared for establishment (windrowed, heaping crusher rolled, mounded)

High site fire hazard - Heavy fuel loadings (including all standing plantations with dry needle bed)

Extreme site fire hazard - Steep slopes > 14 degrees and containing exposed rock and with heavy fuel loads (includes cured harvesting debris / red tops)

On site - located so as to support any potential ignition point within five minutes

Heavy duty manned (2 operators) - 4-wheel drive truck with 2,700 litre water tank and pump rate 1,200 litres per minute. Trucks must have capacity to deliver min 100m hose lay response with appropriate nozzle.

Light unit/Fast Attack - 4WD vehicle or attached trailer with 400 litres of water and 5 hp pump, rake and/or shovel

1. Purpose / objectives

1. Minimise the chance of uncontrolled fire impacting life and property, community and industry assets and associated environmental values.
2. Ensure contractors are aware of opportunities to provide basic skills to their employees to help mitigate fire risk and safely provide initial suppression efforts to protect their equipment and surrounding forest assets.
3. This checklist is applicable to Native Forest and Plantations operations only.

2. PROCEDURE

The Contractor must:

1. Adhere to this procedure and operational restrictions as instructed at all times
2. Ensure all personnel and equipment complies with this procedure at all times. Failure to comply may result in the suspension of services until the fault is rectified.
3. Ensure all field employees have successfully completed the FPC Fire Awareness module within the first six months of employment and provide FPC with details of all current employees if not consistent with industry training records.
4. Ensure that all personnel conform with the minimum standards for Personal Protective Equipment (PPE) for all fire suppression activities.
5. Take all necessary precautions to prevent the occurrence or spread of fire in their worksite.
6. Not light fires in any forest area without the permission of the FPC (FPC) and local fire authority. (DBCA, Shire FCO)
7. During the Restricted and Prohibited burning periods, notify the FPC of their intent to work on weekends or public holidays by midday of the preceding workday. The FPC Duty Officer (FPC DO) will determine if the proposed work can occur and what restrictions will apply.
8. Monitor the State's emergency broadcaster (ABC radio) and the Department of Fire and Emergency Services website (<http://www.dfes.wa.gov.au/totalfirebans/Pages/default.aspx>) for any Local Government imposed bans.

The FPC must:

9. Ensure the [FPC810 Checklist – Contractor Fire Responsibilities](#) is completed during the second week of December on **ALL ACTIVE OPERATIONS** during the span of that week and copies retained on Contractors operational file and within the 788FP Annual Fire Requirements.
10. Notify the contractor during the Restricted and Prohibited burning periods of any operational restrictions based on the forecast fire danger such as shut down times, additional suppression equipment required and/or the requirement to monitor the site for 1 hour after the machine has come to rest.

11. Advise the relevant fire manager of the intended worksite location of Contractor(s) during the Restricted and Prohibited period.
12. Consult with the relevant land manager and the FPC DO during the Restricted and Prohibited burning periods regarding the Contractor's intention to work on weekends or public holidays and any fire related requirements that may be necessary.

2.1 Vehicles and equipment

The Contractor must (at all times):

1. Ensure all vehicles and equipment (including chainsaws) entering the forest have:
 - An effective exhaust system maintained in good working order (BFR 1954 24A.5).
 - Appropriate spark arrester fitted to all internal combustion engines (BFR 1954 24A.5(b)).
 - A fire extinguisher in a sound and efficient condition; defined as a container filled with at least 7.5 litres of water and has a pump capable of discharging that water (BFR 1954 3).
 - A fire rake or shovel with their fire unit.
 - For graders and bulldozers: exhaust systems that discharge emissions vertically upwards (BFR 1954 37A(b)).
2. Light vehicles must remain within 10 m of roads.
3. Daily machine start-up procedures should include a check that the machine is clean of combustible material, particularly the spaces between the engine and engine guards.

2.2 Fire-fighting appliances

During the Restricted and Prohibited burning periods, or as determined by the FPC the Contractor must:

1. Provide on-site, and maintain in good working order, a mobile fire-fighting unit consistent with the requirements of the Guidelines for applying stipulated operational restrictions for that specific operation site. Comprising of a full water tank with a minimum capacity of 400 litres connected to a powered pump with minimum of 20 m heat tolerant PVC/Nitrile hose and capacity to pump 100L/min (minimum).
2. Locate the fire suppression unit/s as per applicable Guidelines for applying operation restrictions to manage fire risk – [FPC145](#), [FPC146](#) and [FPC147](#).
3. Ensure all personnel at the worksite can safely operate the fire-fighting unit in the event of an emergency.
4. Remain on site for one hour after the machine has closed down and work is complete on days when restrictions based on the FDR are applied.

2.3 Smoking

1. Is prohibited in all forest operations, except where the ground surface is clear of all vegetation or other flammable material.
2. There will be no smoking of cigarettes within six metres of any refuelling site.

2.4 On-site maintenance – Hot Works

The Contractor must:

1. Only conduct in-forest maintenance involving hot works once authorisation from the FPC is obtained and ensure:
 - All hot work to be carried out on mineral earth breaks.
 - Before hot work, the area will be wet down with a fire unit in a 6m radius.
 - There shall be more than one person onsite while carrying out hot works.
 - A serviceable fire unit will be on standby at the site of the hot work.
2. Not undertake hot works on days when a Total Fire Ban has been imposed for the area of operation.

The FPC must:

3. Consult with the relevant land manager regarding the intended timing and location of any hot works authorised during the Restricted and Prohibited period, for work on ALL land tenures.

2.5 Fire suppression on or near the worksite

1. **In the event of a fire occurring the contractor must call 000 fire emergency** in the first instance to log the incident with COMCEN (Department of Fire and Emergency Services Communication Centre). Where radio / phone communications are limited, this may require immediately travelling to the nominated emergency communications point in the contractor's emergency safety plan for the worksite to initiate the 000 call.
2. Once the emergency call has been made then the contractor must call the FPC DO **(08 9725 5288)**. The FPC DO will liaise with the land manager on the further coordination for the effective and efficient management of the fire incident.
3. Within employee capacity and training and due consideration for personal safety, endeavour to suppress a fire starting on, or in the vicinity of, the worksite until fire crews arrives.
4. Be competent in the use of the on-site suppression equipment to protect life and property.
5. Assist with the evacuation of personnel and equipment.
6. Pay for any costs incurred by the contractor in suppressing or attempting to suppress a fire on their worksite resulting from the Contractor's operations.

The Contractor should follow the FPC Wildfire Emergency Response ADVISE process in reporting and responding

- *Alert someone who can contact others to seek help to suppress*
- *Defend if safe to do so, take action to suppress where safe and skills support action*
- *Vocalise “communicate” your movements constantly, so others are aware of your situation, location*
- *Identify safe escape routes should fire escalate*
- *Safety zone, know where they are and when to go there*
- *Equipment is critical, ensure PPE is always used when responding to wildfire*

2.6 Wildfire fire risk appreciation and operational restriction guidelines process.

1. All worksites will be allocated a site risk for fire, based on local topography, soil types, fuel types and loadings.
2. Operation type, method and machines will be considered to establish operational risk.
3. Restriction to activities will be determined by applying the Fire Danger Rating, forecast weather conditions for site and operational risk. The capacity of FPC staff, contractors, and other fire agencies to respond to wildfire for the operational period will also be taken into consideration.
4. Daily restriction details will be forwarded to Contractor managers each day by email (FPC199). It will be the managers responsibility to forward these restrictions on to all employees and ensure compliance.