

ATTACHMENT 5 – ASSESSMENT OF FIRE MANAGEMENT PLAN

- **Bushfire Management Plan – DFES Guidelines for Plantations Protection**

TABLE A

Plantation Management Plan, 5.Bushfire Management Plan		
Item	Guideline	TPI Comments based on DFES Guidelines for Plantation Protection
2.1 External firebreaks and setback distances	<p>50 metre minimum between any non habitable structure (shed) and plantation</p> <p>100 metre minimum between any habitable structure and plantation</p>	<p>Complies.</p> <p>The 50-100 metre buffer is on a map in the separate BAL Assessment. <b>The BAL and buffer map should be included in the Fire Management Plan with a clear statement that the buffers will be maintained.</b></p>
2.2 Fuel Reduction	<p>Fuel reduction is encouraged where possible taking into account factors such as remnant vegetation, management techniques, and natural features.</p> <p>The Guideline lists methods available for managing fire breaks.</p>	<p>No fuel reduction is proposed.</p> <p>Recommend that at least be some commitment to monitoring fuel loads and using grazing (after 3 year establishment).</p> <p>DFES has commented on a different FMP for a plantain on Muir Highway that <b>'the FMP does not adequately describe or commit to fuel reduction/management mechanisms or timeframes'</b>.</p> <p>This is relevant to this BMP.</p>
3a.	<p>Landowner and / or occupier information, contact details and 24 hour fire contact number.</p>	<p>Only landline numbers provided. No 24 hour mobile numbers have been provided.</p> <p>The applicant has clarified in additional written information that the landline diverts to a person on duty, and that Bunbury Fibre Experts is a signatory to the FIFWA Fire Managers Agreement along with the Shire of Cranbrook. This is a resource arrangement amongst FIFWA members, DFES and DBCA to provide a shared response to fire emergency within and near to plantation estate.</p> <p>TPI supports the above, however the FMP does not include any of this information or an explanation of who can attend the site in the event of a fire or employment of a suitable</p>

		person to attend the site for fire or ongoing maintenance inspections.
3b.	Contact details of local fire control agencies	Provided in a table on Page 8.
3c.	A fire fighting equipment register and details of any co-operative arrangements.	Provided on Page 9 and 10.
3d.	Plantation species, area and layout including compartment size.	Provided on development application map
3e.	<p>Fire protection measures such as:</p> <ul style="list-style-type: none"> <li>a) Fire detection and reporting mechanisms.</li> <li>b) Initial response and attack of fires</li> <li>c) Potential ignition sources.</li> <li>d) Access in and around the plantation.</li> <li>e) Clearly signed access roads.</li> <li>f) Methods of firebreak maintenance.</li> <li>g) -Measures to protect services (eg powerlines).</li> <li>h) Water supplies and capacity</li> <li>i) Surrounding vegetation type, age since burnt and if the site is being effectively managed (if available)</li> <li>j) Sites fire history, where available.</li> <li>k) Harvesting procedures and other measures used to reduce hazards (eg slashing, thinning).</li> <li>l) - Fuel reduction programme if applicable such as herbicide use or grazing.</li> </ul>	<ul style="list-style-type: none"> <li>a) Fire detection and reporting mechanism is outlined in 5.5</li> <li>b) Initial response and attack of fires is outlined in 5.7.</li> <li>c) Potential ignition sources. Outlined in 5.4.</li> <li>d) Access in and around the plantation. Provided via 15m perimeter fire breaks and 6 metre internal firebreaks.</li> <li>e) Clearly signed access roads. <b>Signage mentioned for water points but not access roads.</b></li> <li>f) Methods of firebreak maintenance. <b>States that some fire breaks will be sprayed in early spring and grading will be used if required. No detail on how trafficable for breaks will be.</b></li> <li>g) Measures to protect services (eg powerlines). A powerline is shown on the site plan and under 5.10 discusses a 15m break either side.  <b>Need to confirm type of power line as there are specific fire break and setback clearances for pine under the DFES Guidelines (page 20).</b></li> <li>h) Water supplies and capacity. <b>Discusses that water points will be maintained to provide water all year round. Seek further commentary on reliability of water supply.</b></li> <li>i) Surrounding vegetation type, age since burnt and if the site is being effectively managed</li> </ul>

		<p>(if available). No fire history is mentioned and /or whether vegetation in adjacent reserves is well managed.</p> <p>j) Sites fire history, where available. No fire history is mentioned and /or whether vegetation in adjacent reserves is managed.</p> <p>k) Harvesting procedures and other measures used to reduce hazards (eg slashing, thinning). Not specifically mentioned but refers to potential for some grazing after 3 years.</p> <p>- Fuel reduction programme. Refers to herbicide use or grazing.</p>
3f.	Surrounding local features including existing plantations, proximity to towns, remnant vegetation and significant values relevant to the site.	<p>Outlines proximity to towns and other plantations. Does not provide a context of surrounding remnant vegetation such as within adjacent and nearby reserves.</p> <p>No context plan provided.</p>
3g.	A plantation map to be held in suitable containers and clearly signposted at the main property entrances and other locations approved by the local government.	<p>The applicants additional written advice refers to maps in a water proof canister at the access on Wingebellup Road.</p> <p>Wingebellup Road is further south and the lots do not have direct road frontage to Wingebellup Road.</p>
3h.	<p>Fire compartment maps will indicate:</p> <ul style="list-style-type: none"> <li>- Compartment boundaries and sizes</li> <li>- Water supplies including dams</li> <li>- Emergency access/egress (firebreaks)</li> <li>- Structures</li> <li>- Significant features such as remnant vegetation</li> </ul>	Plantation map shows firebreaks, water points, and compartment areas as well as a house and sheds.
4.1 Compartment size and layout	<ul style="list-style-type: none"> <li>- Compartments should be no more than 30 hectares where possible or as prescribed by the local government.</li> <li>- Compartment boundaries should follow roads or natural features.</li> </ul>	<p>Compartments 18, 24 and 25 exceed the 30 hectare size.</p> <p>The map shows firebreaks with sharp turning angles so it is not clear if they are sufficient for emergency fire vehicles.</p>

	<ul style="list-style-type: none"> <li>- Fuel loads management techniques should be considered such as slashing between rows or grazing.</li> <li>- Topography, slope, access to water etc should be considered.</li> <li>- The layout should ensure that firebreaks are maintained sufficiently for emergency service access.</li> </ul>	<p>No information or description of topography or slope.</p> <p>No clear access track to water – example is Compartment 25</p>
4.2 Fire breaks and access	<ul style="list-style-type: none"> <li>- Fire breaks to be as per the local government fire notice.</li> <li>- Vehicle access to be maintained in the planting layout.</li> <li>- Where possible tracks should be aligned to provide straight through access at junctions.</li> <li>- Access lanes must allow one line of traffic with passing areas where possible. Passing bays are recommended at 200m intervals (20m long by 6m wide)</li> <li>- The minimum trafficable surface must be 6 metres.</li> <li>- There must be horizontal and vertical clearance for vehicle access. 6m horizontal</li> </ul>	<p>It is not clear if any passing bays are proposed or turnaround areas for fire vehicles.</p> <p>Report states there will be 15 metre external firebreaks and 6 metre internal firebreaks.</p>
4.3 Water Supplies	<ul style="list-style-type: none"> <li>- A 50,000 litre minimum to be permanently available with suitable fittings</li> <li>- Water supply to be designed and constructed so that heavy duty water firefighting equipment is able to access the supply.</li> <li>- Water supply to be shown on a plantation map and signposted in the field.</li> </ul>	<p>Recommend provide greater explanation on the most reliable dams for water supply, and how the water can be accessed. There was some mention of pumping water.</p>

5. Equipment and training	<p>The Guidelines discuss that it must be possible for every plantation manager to attend a fire on their own plantation.</p> <p>The Guidelines discuss:</p> <ul style="list-style-type: none"> <li>- ensuring that any personal have adequate training</li> <li>- Machinery to be fitted with fire extinguishers.</li> <li>- Fire fighting equipment to be maintained in good working order.</li> <li>- Adhere to harvest bans</li> </ul>	<p>No explanation in the FMP on how this will be achieved.</p> <p>No reference in the FMP to training, machinery or fire-fighting equipment.</p> <p>No reference to harvest bans in the FMP.</p>
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- **Fire Management Plan – Shire Local Planning Policy**

The Fire Management Plan does not appear to have been prepared by a fire consultant. Qualifications or experience of the person who prepared the plan are not provided.

As a minimum all Fire Management Plans shall be compiled by a suitable qualified or experienced fire consultant and;

1. Address the Bushfires Act (1954), the FESA (now DFES) Guidelines for Plantation Fire Protection 2011 and the local government firebreak notices. Refer Table A above
2. Generally follow the DFES Guidelines however also include;
  - Consideration of increased bushfire risk to any structure within 100 to 150 metres of any proposed planting areas and other land uses in the vicinity of the plantation lot – refer Clause 10.6.1. There is a separate BAL Assessment which considers existing vegetation within 150 metres however TPI has concerns over some vegetation that has been classified as 'excluded'.
  - Identify and address bushfire hazard as if it already existed, in accordance with State Planning Policy 3.7 (SPP3.7). FMPs should identify increased bushfire risk associated with the plantation in it's most mature state. The BAL has a 100 metre buffer between the plantation and the house.  
*This is consistent with State Planning Policy 2.5 Rural Planning Guidelines Version 3 December 2016 which references SPP3.7.*
  - A fire suppression response examining the ability of the local fire brigade to respond to a fire on the property, having regard for distance, existing available local equipment and the location of on site water supply. Discussed in Fire Management Plan. The FMP should reference the MOU.
  - Outline the owners' responsibilities, neighbours' responsibilities, and applicant's responsibilities. Responsibilities not detailed in Fire Management Plan. Recommend clear owner responsibilities be included such as regular inspections, timing of inspections, compliance with annual firebreak notice to install and maintain fire breaks.

- Fire Management Plans must nominate a local contact person or contractor who can attend the plantation site in the event of a fire emergency, for installation of fire breaks and regular ongoing maintenance of the plantation. **Not provided.**
  - The Plan to have clear scheduled regular inspections, a rigorous ongoing maintenance regime with measurable outcomes, which demonstrates a strong management commitment; **Not outlined clearly enough.**
  - Owners may need to consider providing on site water trucks for use in the event of a fire having regard for the property location, and realistic fire suppression response. **Not clear if any water trucks will be kept n site.**
3. Include a location/ context plan examining the surrounding land uses and identifying; **Not Provided.**
- Other existing or approved plantations within the immediate vicinity.
  - Any significant surrounding industries or land uses which may impact on fire management such as Rural Industry (hay storage), wood stockpiling, fuel storage etc
  - Identify any residential, rural residential or built up townsites located within 1 kilometre.
  - Identify nearby well vegetated areas or sources which may increase the risk of fire.
  - Increased bushfire risk of mature plantations for existing development in the vicinity of the plantation.
4. Include a Fire Management Plan (site plan) addressing the guidelines for 'fire prevention and suppression' contained in the Code and clearly show;
- Compartments and compartment sizes.
  - Water supply / points. A rainwater tank with a minimum capacity of 50,000 litres is required.
  - Location of any powerlines passing through planting areas or in close proximity to planting areas and / or proposed firebreaks.
  - Location of fire breaks. The site plan is to clearly distinguish between boundary firebreaks, strategic firebreaks, compartment breaks, fire breaks along public roads and fire breaks along powerlines using a colour coded legend.
  - Turnaround areas for emergency vehicles. **Not Provided.**
  - Location for emergency signage. **Not Marked on site plan.**
  - Emergency access / egress points and internal accessways.
  - Existing or proposed gates where firebreaks/emergency accesses intersect with fencing that can accommodate a 4.4 fire appliance.
5. Identify the location of any existing structures and need for low fuel areas. DFES Guidelines recommend a 50 metre distance between a planted area and any non habitable structure. **Shown in BAL.**

This distance may need to be increased for protection of established land uses on adjacent lots – refer Clause 10.6.1.

6. Comply with the relevant minimum fire break standards outlined in the Shire of Cranbrook's Fire Break Notice.

7. Involve consultation with the relevant authority (such as; Department of Water and Environmental Regulation; Water Corporation, the local government or the like) where the land is adjacent to a reserve, conservation area or crown land. Fire Management Plans should be independently managed unless there is a formal written agreement from an adjacent reserve owner over issues such as major burning of land outside of the application. **MOU provided but not referenced in FMP.**