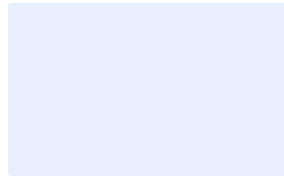




# FSC® FOREST MANAGEMENT PLAN

Wharekahika Forest  
Whangaparāoa 3B Trust  
Reporting Period: September 2023 – August 2028

Author  
Signature



Author Name

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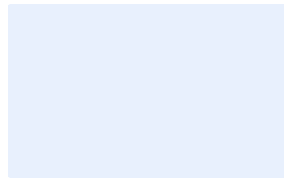
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25 October 2023

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# 1. What is this Plan?

## About this Plan

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This **specific** forest management plan provides details about Wharekahika Forest.

It is to be used in conjunction with the **standard** forest management plan, which outlines the typical management applied to the Forest Stewardship Council® (FSC) Group Scheme forests.

Where Wharekahika Forest is managed in a different way than described in the standard forest management plan, this is detailed within this plan, which takes precedence.

## Foundation Principle

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Whangaparāoa 3B Trust is committed to adopting the Forest Stewardship Council (FSC) Principles and meeting the FSC Criteria relevant to forest management.

Whangaparāoa 3B Trust is committed to the PF Olsen FSC Group Scheme **NC-FM/COC-000190** processes and associated documents.

Whangaparāoa 3B Trust seeks to continue FSC certification, to ensure that their forests are managed in an environmentally appropriate, socially beneficial and economically viable manner and to obtain the best access opportunities to the local processing market which is seeking to source FSC certified logs.

## 2. The Forest Land

### Location and access

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Wharekahika Forest is a 50 hectare forest in the East Coast region. The location of the forest is shown in Appendix I.

### Forest Area

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Forest	Net Stocked area (ha)	Indigenous area (ha)	Awaiting planting (ha)	Total forest area (ha)
Wharekahika	36.4	14.5	0.0	50.9

### Legal ownership

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The forest is freehold.

### Markets

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The location of the forest in relation to potential markets is listed in the table below.

#### Distances from forest to log markets

Potential Market or Export Port	Distance from Forest (km)	Log market
Mount Maunganui	283	Export
Whakatane	184	Domestic
Kawerau	247	Chip

### Topography

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- The forest consists of mostly flat to rolling contour with a few steeper areas.
- The bulk of the property drains in to the Mangapurua Stream and then via the Wharekahika River into the Pacific Ocean.
- Slopes are consistent and rarely exceed 15 degrees.
- Altitude ranges from 100 to 300m above sea level.
- The general aspect is west

## **Soil**

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The soils on the property are Yellow Brown Loams with the potential for moderate earth slip. These soils have low natural fertility but are suitable for production forestry.

## **Climate**

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The New Zealand Meteorological Services observation at nearby East Cape indicate:

- A mean annual temperature of 15.2 °C and
- Mean annual rainfall of over 1,371 mm spread throughout the year.
- Predominant winds are from the north.

### 3. Ecological Information

#### Ecological District

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Wharekahika Forest is located within the Pukeamaru Ecological District (ED), in the East Cape Ecological Region. For more information on the ED please refer to *Ecological Regions and Districts of New Zealand – Part 2* (pages 31 – 32).

#### FSC requirement: Ecological District

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As the area is more than 10% by forest, and more than 10% within the Pukeamaru ED within the PF Olsen Group Scheme, there is not a reserve shortfall.

#### Reserve areas in Wharekahika Forest by Ecological District

Ecological District	Total Forest Area (ha)	Reserve Area (ha)	Reserve %	Meets FSC?	Reserve Shortfall (ha)
Pukeamaru	50.9	14.5	28.5%	YES	0.0

#### Threatened Environments Classification

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The reserve areas in Wharekahika Forest are within the following NZ Threatened Environments Classifications.

Threatened Environment Classification	Area (ha)
<10% remaining	0.6
10 – 20% remaining	
20 – 30% remaining	
>30% remaining & <10% protected	10.5
>30% remaining & 10 – 20% protected	
>30% remaining & >20% protected	3.4
Total Area (ha)	14.5

### 4. Cultural and Social Aspects

#### Forest history

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The forest has no history of significance to certification.

## Current social profile

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As a small forest, a very long distance from any sizeable towns and providing only intermittent low levels of employment, Wharekahika Forest will have a very minor influence on the regional socio-economic profile of its surroundings.

## Historic and archaeological sites

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The 'Archsite' website resource does not have any records of historic sites in Wharekahika Forest, or within 1 km of the forest boundary.

Accidental discovery protocols will apply should any physical evidence be discovered during operations.

## Tangata Whenua

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Ngāti Porou are the tangata whenua associated with Wharekahika Forest. They have a [joint management agreement](#) with Gisborne District Council (GDC) over the Waiapu Catchment, and the following Statutory Acknowledgements:

- Waiapu River and its tributaries
- Uawa River and its tributaries
- Turanganui River and its tributaries within the Ngati Porou area of interest

No iwi management plans have been lodged with GDC.

Whangaparāoa 3B Trust own the forest.

## Tenure & resource rights

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The only known iwi interests in Wharekahika Forest are the interests of the forest owners, Whangaparaoa 3B Trust. No other iwi interests are anticipated.

## Neighbours

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Appendix 2 lists the forest neighbours. Some or all of these parties should be consulted when operations are proposed in forest areas adjacent to their boundaries.



## 5. Regulations

### National Environmental Standards for Plantation Forestry (NES-PF) Erosion Susceptibility Classification

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The NES-PF regulations are generally based on the Erosion Susceptibility Classification (ESC) of the underlying land.

The forests are located on generally moderate erosion risk land (yellow zone). The majority of the forest activities will be permitted subject to meeting the NES-PF regulations. Only 1.6 ha of the forest is in the orange ESC zone, and none in red.

The table below shows the proportion of each forest by the respective National Environmental Standards for Plantation Forestry (NES-PF) ESC.

#### Productive plantation area (ha) within each ESC Class

Forest	Low	Moderate	High	Very High	Very High (8e)	Total
Wharekahika		34.7	1.6			36.4

### Council RMA Plans

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Wharekahika Forest falls under the jurisdiction of the Gisborne District Council, which is a unitary authority fulfilling both district and regional council functions.

The Gisborne District Council has its own planning documents and associated rules, developed through public process. The [Tairāwhiti Resource Management Plan 2018](#) has rules that are more stringent than the NES-PF regarding:

- Harvesting
- Earthworks
- Replanting
- Discharges, disturbances and diversions
- Archaeological and waahi tapu sites
- River crossings
- Slash traps
- Work around / adjacent to wetlands and riparian areas
- Afforestation

They also have rules for aerial spraying operations, and around any land disturbing activities on Land 3A Overlay classified areas.

Resource consents may be required for any of the above activities.

While there are currently no iwi management plans, should Ngāti Porou write one consideration will need to be given to it, especially when applying for any resource consents.

## **Consents & authorities held**

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There are no resource consents or Archaeological Authorities relevant to Wharekahika Forest.

## **Emissions Trading Scheme**

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Forests in New Zealand are governed by rules related to New Zealand's Kyoto commitments to reduce the nation's carbon footprint and contribution to associated climate change.

Wharekahika Forest was planted on 'Kyoto compliant' land that was vacant as of 31 December 1989. The forest areas have not been registered to participate in the NZ Emissions Trading Scheme and are not subject to the accrual of emissions credits and liabilities under that scheme.

## 6. Managing environmental risk

### Assessment of environmental risks

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Refer to the Standard FSC Forest Management Plan.

### Infrastructure damage or service disruption

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Wharekahika Forest has no infrastructure within the boundaries of the forest. Should any be located within/adjacent to the forest at a later date the risks will be managed by:

- Identification on maps and on the ground of any utilities at planning stage.
- Early engagement with utility owner to plan operations to minimise risks.
- Operational execution of agreed plans with parties specifically qualified for the tasks involved when working close to utilities.

### Pests and diseases

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The [Regional Pest Management Plan for Gisborne District Council 2017 – 2027](#) includes several pest plant and animal species that are or may be present within the forests. These include:

- Broom, site led
- Buddleia, site led
- Feral goats, sustained control
- Feral rabbits, sustained control
- Gorse, progressive containment
- Nassella tussock, exclusion
- Nodding thistle, progressive containment
- Old man's beard, progressive containment
- Pampas, sustained control
- Ragwort, sustained control
- Rook, eradication
- Wallaby species, exclusion
- White-edged nightshade, eradication
- Wild ginger, sustained control
- Wilding conifers, site led

- Woolly nightshade, progressive containment

A full list of species can be found in the pest management plan.

## Fire

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Wharekahika Forest is within the Ngā Tai ki te Puku Forest and Emergency New Zealand (FENZ) region for forest fire management. The [Fire Plan for Tairāwhiti, Ngā Tai ki te Puku 2021 – 2024](#) contains additional key information regarding the protection of land and management of fires.

## 7. Commercial Plantation Estate

### Current crop

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Wharekahika Forest is 100% radiata pine, planted in 2000. Radiata pine has been selected as it is the most commercially viable species. Alternative species were considered but did not meet the Whangaparaoa 3B Trust's objectives.

Replanting will follow harvesting as it occurs, with minor deviations for seasonal or operational reasons and boundary rationalisation. Re-establishment will aim to use high quality tree stocks suitable for the site and market. This will be investigated at time of replanting.

### Tending

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The tending regime at Wharekahika Forest is a clearwood regime, as follows:

- First prune – prune 350 – 380 stems/ha to around 3.5m
- Second prune – when the DOS will be like that achieved in the first lift, prune 350 stems/ha to leave 4.0m of crown
- Thin to waste

There are no further tending operations planned due to the age of the forest.

### Tree nutrition

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The soils in Wharekahika Forest are not likely to be deficient in nutrients for healthy tree growth.

## 8. Harvesting Strategy

### Harvesting strategy

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The potential range of harvest age for Wharekahika Forest is 25 to 32 years, depending on growth rates, likely markets and contractor availability.

In the next 5 years, some harvesting is planned in Wharekahika Forest. It is estimated that 20% of the harvest will be ground-based, and the remaining 80% hauler/cable extraction. This may commence in 2027 when the stands are age 27. Consents are unlikely to be required for harvesting provided the conditions for earthworks and harvesting within a moderate (Yellow) ESC zone can be met.

The planned harvest for radiata beyond the end of 2022 is listed below:

Annual harvest (ha)	2023	2024	2025	2026	2027
Radiata pine	-	-	-	-	36.4

### Infrastructure

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Prior to harvesting, infrastructure maintenance and minor upgrades may be required to the existing road network. In addition, landings and approximately 1.5 km of new roads will need to be constructed. This work is likely to occur in 2026 prior to harvest starting.

## 9. Indigenous Biodiversity

### Protected ecosystems

There are 14.5 hectares of protected ecosystems within the forest, all of it in the lower protection categories. The riparian area (RIPR-01) is typical of most regenerating indigenous vegetation on past farm clearance areas and will follow a natural progressive succession to tall forest in the absence of fire. The species present will develop even in the presence of mammalian pests albeit the ratios of species, particularly palatable hardwoods, will be influenced by possum and goat browse. LEPT-01 comprises of the same common species and is in a more advanced regenerative state.

#### Protected ecosystem & reserve areas by protection category

Forest	Special	Full	Limited	Passive	Reserve	Total (ha)
Wharekahika	-	-	13.6	0.9	-	14.5
	0%	0%	94%	6%	0%	100%

### High Conservation Value (HCV) Forests

The ecological survey specifically identified if any reserve areas met the criteria for High Conservation Value (HCV) areas under FSC rules. None of the reserve areas within Wharekahika Forest meet the HCV criteria.

### Threatened species

The following species have been recorded in Wharekahika Forest, or in the surrounding landscapes (i.e. they may use the forest as habitat). The forest will be surveyed for bats and kiwi prior to harvest. If either species or falcon are found during those surveys, then the species appropriate Forest Owners Association ([FOA management guidelines](#)) will be followed.

#### Overview of threatened flora and fauna

	Species	Status
Fauna	Long-tailed bat (N.I.)	Nationally vulnerable
	North Island Kaka	Nationally vulnerable
	North Island Brown Kiwi	Nationally vulnerable
	Kārearea/NZ falcon	Nationally vulnerable

iNaturalist ([Biodiversity in Plantations](#)) will be used to record sightings of important indigenous fauna or flora discovered in the forest.

## Fish

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Although there are no permanently flowing waterways within Wharekahika Forest, Te Purimu Stream runs parallel to its north-eastern boundary, while another waterway runs parallel to the forest's south-western edge. Using the [NES-PF Fish Spawning Indicator](#) and Freshwater Environments New Zealand database, only longfin eel have been identified as likely being present in those waterways (high likelihood).

Key ecological management activities are outlined in Appendix 3.



## 10. Other Special Values: Everything but the timber

### Recreation

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Wharekahika Forest provides little recreational use as the forest is small and relatively remote, however there is some hunting undertaken in the forest by local hunters.

All forest users are expected to follow the intent of the Herenga ā Nuku Aotearoa – the Outdoor Access Commission [Outdoor Access Code](#) and any signage / barriers in place within the forest.

Closures will also apply during times of high fire risk, any *force majeure* state and during forestry operations.

Any approved access is managed through the PF Olsen forest access permit system.

### Public access roads

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While SH 35 / Te Araroa Road runs along the southern edge of the property, there are no formed or unformed public roads, easements or esplanade reserves (marginal strips) within or adjacent to Wharekahika Forest. Refer to the [Herenga ā Nuku - Outdoor Access Commission website](#).

### Other special values

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Honey is produced from beehives in the forest. The hives provide honey to the local apiary and are likely to continue and potentially increase subject to appropriate agreements and management of conflicts.

### Non-Timber Forest Products

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There are no FSC certified non-timber forest products<sup>1</sup> from Wharekahika Forest.

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<sup>1</sup> In FSC standards, the reference to non-timber forest products is a reference to such products that are able to carry the FSC label. It is not a reference to the presence or absence of other co-products from the forest areas that do not seek to carry the FSC label.

## 11. Future Planning

### Plan changes & reviews

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The next major review date for this plan is 5 years – August 2028

Minor revisions may be made at any time. Any material changes made will be documented below.

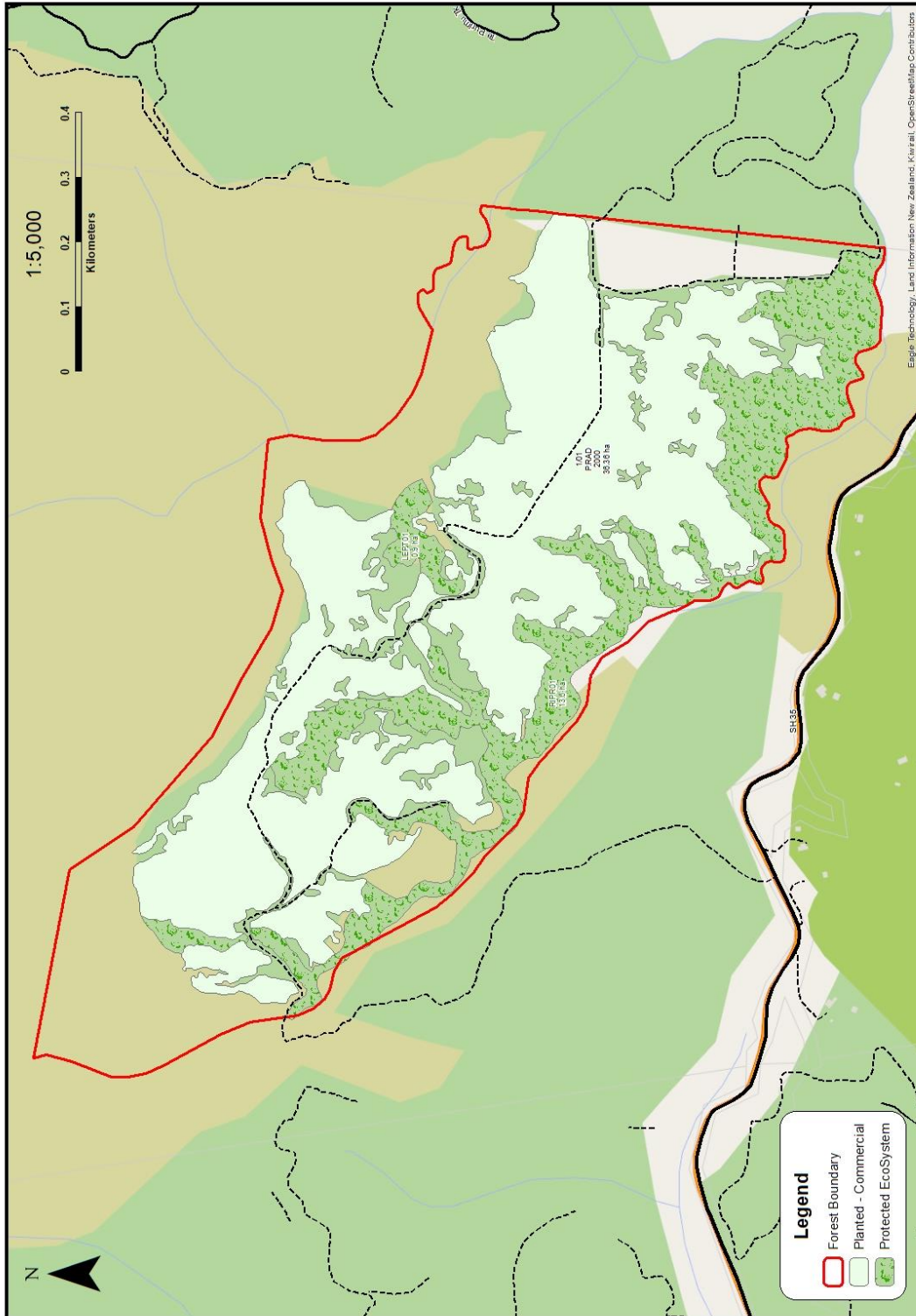
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## Appendix 1: Forest Maps

### Forest Location Map



## Forest Stands Map



## **Appendix 2: Forest Neighbours**

Not Publicly Available.

## Appendix 3: Schedule of Ecological Management

Review Date: August 2028

Activity	Action detail	Area/s	Due date
iNaturalist entries	<ul style="list-style-type: none"> <li>Species and status frequencies (especially new finds) entered by public, crews, operational supervisors.</li> </ul>	All forest areas	Ongoing
Archaeologist consultation	<ul style="list-style-type: none"> <li>Consultation with an archaeologist prior to harvest</li> </ul>	All forest areas	At least 6 months prior to harvesting
Train crews in Threatened Species observation & management	<ul style="list-style-type: none"> <li>Include photos of species in threatened species ID posters and train (during inductions) crews to be alert for presence of threatened species and to avoid damage within operational areas.</li> <li>Record any sightings in iNaturalist database.</li> <li>Apply relevant forest management protocols (e.g. NZ Falcon Management Guide – Plantation Forestry)</li> </ul>	All forest areas	During forest induction, ongoing
Annual walk-through check / drone survey	<ul style="list-style-type: none"> <li>Forest manager to note any issues including weeds, wilding pines, animal browse.</li> <li>via a combination of a walk-through check on the ground and/or use of a drone to carry out an aerial assessment of the block.</li> </ul>	All indigenous areas within forests	31-Dec (annually)

Activity	Action detail	Area/s	Due date
Pest control - Animals	<ul style="list-style-type: none"> <li>Formalise a pest control plan - possibly using an external contractor.</li> <li>Undertake required pest control in accordance with the plan d- this may include shooting, trapping and/or poisoning (with initial and ongoing Residual Trap Catch for possum density).</li> </ul>	All indigenous areas within forests	Pest control plan by 31-Dec- 2023  Annual pest control by 31 Dec each year
Pest Control - Plants	<ul style="list-style-type: none"> <li>Carry out any pest plant control based on annual walk-through check / drone survey information and the Regional Pest Management Plan.</li> </ul>	All indigenous areas within forests	31-Dec (annually)
Bat surveys	<ul style="list-style-type: none"> <li>Carry out targeted pre-harvest surveys for long-tailed bats</li> <li>Ideally, carried out in warmer months to avoid hibernation</li> <li>Record any sightings in the iNaturalist database and the National Bat database (DOC)</li> </ul>	Throughout forest	Prior to harvest  Ongoing recording of sightings