Forest Stewardship Plan

April 2025

HQPlantations

Developing and implementing forest management systems, operations and practices consistent with internationally recognised forest stewardship standards is a core goal for our business. Our commitment to forest stewardship at HQPlantations is derived from our investors, the community at large and the personal values of each of our employees to do the right thing.

The Forest Stewardship Plan provides an overview of our forest management and how that management aims to satisfy a range of economic, social and environmental objectives.

The Board, our investors and I all have high expectations of our employees and contractors in regard to forest stewardship. We expect that our commitment will be demonstrated every day in some way to our customers, the community, neighbours, forest users and our investors.

Jason Wilson
Chief Executive Officer
HQPlantations Pty Ltd

Direct all enquiries to:

Phone: +61 7 3882 8240

Fax: +61 7 3882 8282

Mail: PO Box 785

North Lakes Q 4509

Email: information@hqplantations.com.au

Further information can be found at: www.hqplantations.com.au

Image on title page: Southern Pine plantations, Toolara State Forest.

Electronic Master Copy held: HQPREC-56-214

Acknowledgment of Country

HQPlantations acknowledges Aboriginal and Torres Strait Islander Peoples as the Traditional Custodians and First Nations Peoples of Australia. We pay our respects to their ancestors and Elders past, present and emerging and thank them for enriching our nation with their cultural practices, traditions and connection to Country.

Contents

1. INTRODUCTION

1.1. HQPlantations Overview

At HQPlantations (HQP), we sustainably manage around 310,000 hectares of forest throughout the state of Queensland including almost 190,000 hectares available for softwood and hardwood plantation production. These plantations can produce up to 2 million cubic metres of logs annually that presently support the domestic sawmilling industry.

While a continuous fibre production supply chain is important, sustainability is about a lot more than just meeting annual supply targets. We see ourselves as genuine stewards for the land and environment that we manage, responsible for the maintenance and protection of our plantation and non-plantation lands for a range of conservation, community and other social, environmental and economic values in a manner that preserves and enhances them for future generations.

This document describes provides an overview of the scope and scale of our forest management and how HQP meets the environmental, social and economic criteria and requirements for wood production as specified in the following standards:

- *Australian and New Zealand Standard™ for Sustainable Forest Management AS 4708 - 2021[1]; and*
- *Forest Stewardship Council® (FSC) National Forest Stewardship Standard of Australia (FSC-STD-AUS-01-2018 EN).*

The term 'certification', as used in this document, refers to certification under both standards.

This Plan is held as a publicly available document on www.hqplantations.com.au.

Toolara Forest

1.2. Defined Forest Area

Our area under management at 30 June 2024, or Defined Forest Area (DFA), was 309,434 ha and comprised:

- 296,222 ha (96%) Plantation Licence (PL) land (Licence Area) on various State Forest tenures
- 10,855 ha (3%) freehold corporate holdings
- 1,979 ha (>1%) land rental and other land (including
- 1,372 ha located on other State lands)
- 378 ha (>1%) joint venture land (**Figure 1**).

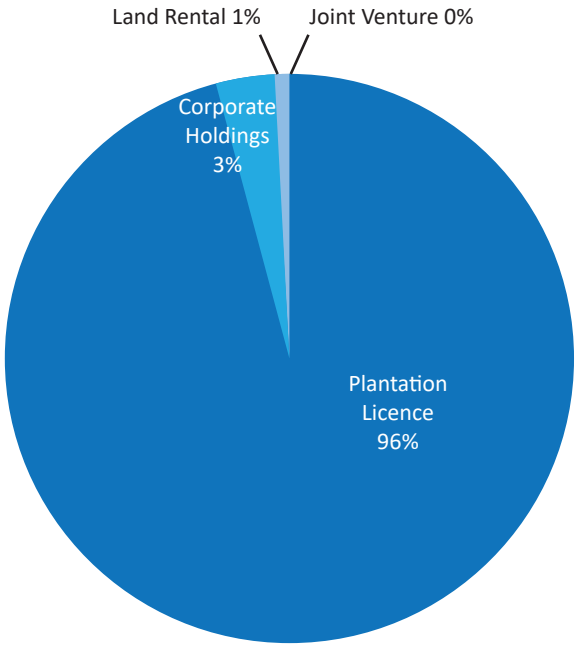


Figure 1

Overview maps of the DFA showing regions and plantation areas are included as **Appendix 1**. They also show surrounding areas of State Forest and National Park.

We maintain a full set of property plans covering the Licence Area, freehold properties, joint ventures and land rentals, which collectively comprise the DFA. Maps of our DFA can be viewed on the stewardship section of the website www.hqplantations.com.au.

The DFA we manage comprises:

- 187,782 ha (61%) of plantation production land.
- 121,651 ha (39%) of custodial lands (comprising buffer areas of mainly native forest) and infrastructure such as roads and forest offices (**Figure 2**).

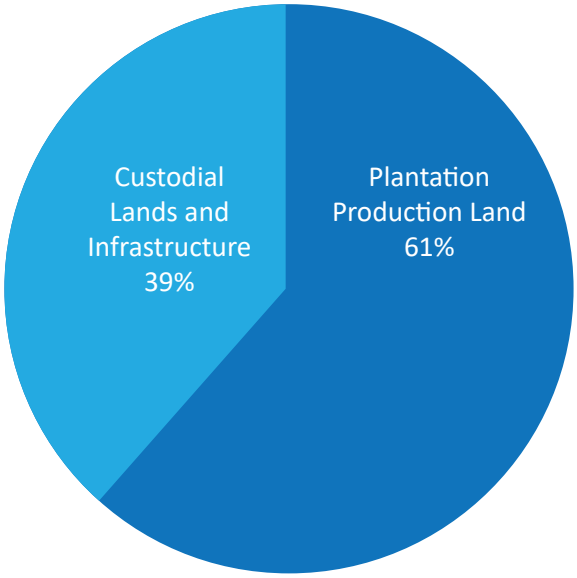


Figure 2

1.3.Scope of Certification

The scope of our certification is the management of forests for the sustainable production and sale of plantation grown forest products. This scope covers the major plantation assets on PL as well as our freehold properties and land rentals.

In accordance with the PL, the State, via its Department of Primary Industries (DPI), has the right (within the Licence Area) to harvest native forest products in custodial areas and certain hardwood plantations established prior to 1996 (refer section 4.1). The State also has the right to authorise quarrying activities within the Licence Area, subject to certain conditions. The activities of DPI and the State generally are not within the scope of our certification.

Other minor exclusions from the scope of our forest management certification include Joint Venture plantations and our nursery, which in separately certified under the Nursery Industry Accreditation Scheme Australia (NIASA). Collectively these comprise 418 ha (0.1% of the DFA).

Southern Pine estate, Tuan Forest

Mary's Creek Waterhole, Imbil Forest

Araucaria harvest site

2. MANAGEMENT OBJECTIVES & TARGETS

2.1. Objectives and targets

Strategic and Long Term Plan

We manage the growth, protection and sale of sustainable forest products to maximise investor value and stewardship outcomes.

The **Strategic Plan** sets out our vision to create and sustain plantation value and security for generations. To achieve this we work together with our business partners to safely and innovatively maximise enduring plantation forest production and forest values on behalf of our investors. The plan outlines our business direction, strategic pillars and objectives required to meet this vision as well as outlining our culture, values and position. Our Strategic Plan 2021-2025 is available on our website and we are currently finalising the next version.

We develop an annual plan consistent with the Strategic Plan, that sets out priority actions for meeting our goals. Budgets and business group plans then set out a range of performance criteria consistent with our Strategic Plan.

The **Long Term Plan** (LTP) operates in tandem with the Strategic Plan in looking ahead to the end of the PL and provides a benchmark to which the business operates in terms of sales, revenue, costs and cash flow targets and expected rate of return. The LTP is updated annually to take account of changes to the business environment and management strategies. The LTP is not a publicly available document due to its commercially confidential information.

The Strategic Plan, the LTP and the annual budget is developed by management for endorsement by the Board of Directors.

The HQPlantations Stewardship Policy sets out our position with respect to achieving and implementing sustainable forest management in accordance with relevant forest certification standards. It is available on the public website.

This **Forest Stewardship Plan** (FSP) establishes a framework for HQP to achieve the forest management performance requirements of certification standards and compliance with legal and other requirements.

The FSP, along with the Strategic Plan and the LTP, are key documents that govern our business performance as well as the settings for operational standards.

To create the culture needed to achieve our Vision and Strategic Objectives, we operate within five core values - Commitment, Drive, Integrity, Respect and Adaptability.

At HQP, our **Corporate Risk Management Standard** provides guidance for assessing risks that may arise from or impact upon our operations. Various aspects and impacts of operational activities are identified and their significance assessed as set out in the **Risk and Legal Compliance Register**. Key aspects include those relating to governance, machinery use, fuels and oils, fire, people and chemical use. The register is reviewed annually.

In addition to third party audits, we periodically conduct a review of the overall business system and operations. Objectives and targets are set to mitigate and manage any 'significant' risks arising from these reviews. These targets and their related actions and timelines are summarised in a corporate **Risk Management Plan**.

Figure 3 summarises HQP's planning framework.

2.2.Legislative compliance

As stated in our Stewardship Policy, we are committed to complying with all relevant Federal and State laws and international conventions to which Australia is a signatory. Included in this is our commitment to the prevention of bribery and corruption which is outlined in our Anti-Bribery and Corruption Policy available on our website. This policy is in compliance with relevant Australian legal requirements (particularly the *Corporations Act 2001* and the Criminal Code).

A comprehensive register is maintained summarising laws and other compliance instruments relevant to our business, the specific activity they relate to and whether compliance requires paying fees, obtaining a specific licence, permit or approval prior to undertaking activities and/or if a general duty of care is required. The register also provides linkages to relevant internal policies and procedures supporting compliance.

HQP is required to pay prescribed fees, levies, taxes and other charges including Forest and Wood Products Australia (FWPA) levies that promote forest sector research and development. We are also subject to charges for various environmental permits, for example relating to hard rock quarries and water extraction licences.

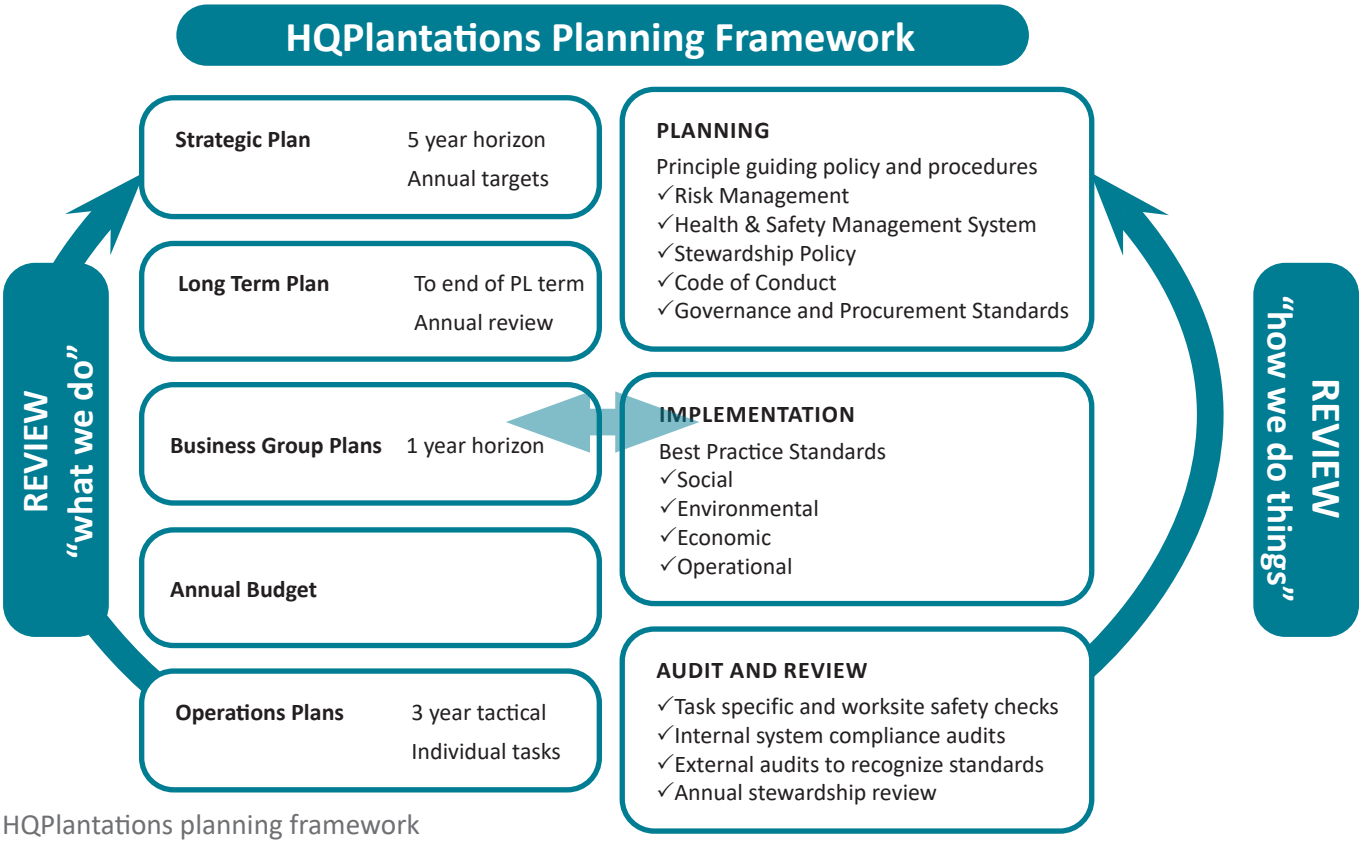


Figure 3 HQPlantations planning framework

3. PLANNING FRAMEWORK

At the activity level, operational standards describe objectives, targets and procedures for forest management operations and guidance on managing impacts associated with aspects of particular activities (e.g. site preparation, weed control, harvesting).

At the site level, we develop Operations Plans to take account of site-specific aspects and impacts associated with the work to be undertaken, for example:

- stakeholder engagement requirements
- community safety and neighbour issues
- workplace health and safety hazards
- environmental impacts that require concurrent management with forestry activity (illegal dumping, pests, damaged road infrastructure)
- Endangered, Vulnerable or Near Threatened (EVNT) species and rare ecological communities
- transport management
- High Conservation Values (HCVs)
- water resources and associated riparian habitats and hydrologic functions
- soil resources
- historical, archaeological and cultural sites.

Where site level assessments indicate the presence of special values, additional management actions are applied to mitigate or eliminate any negative impacts.

We achieve implementation of our forest management system by adhering to plans and procedures underpinned by research that aims to enhance performance and mitigate any negative impacts.

While most of the DFA is managed for productive timber plantations, the remainder comprises mainly native vegetation plus much smaller areas supporting infrastructure such as roads, fire breaks, power line easements, quarries and forest depots. These areas are collectively known as Custodial Lands and we are responsible for their ongoing protection and maintenance.

The entire estate DFA is identified and described in the corporate **Estate Register**.

3.1. Organisational structure

The Chief Executive Officer (CEO) is accountable to HQP's Board of Directors. The Board meets quarterly and is responsible for all aspects of business governance and performance. Board considerations are supported by quarterly meetings of Board Sub-Committees covering Health, Safety & Environment, Remuneration, and Audit & Risk. Key management reporting relationships are shown in the organisation chart (**Figure 4**). Regional boundaries are shown in **Appendix 1**.

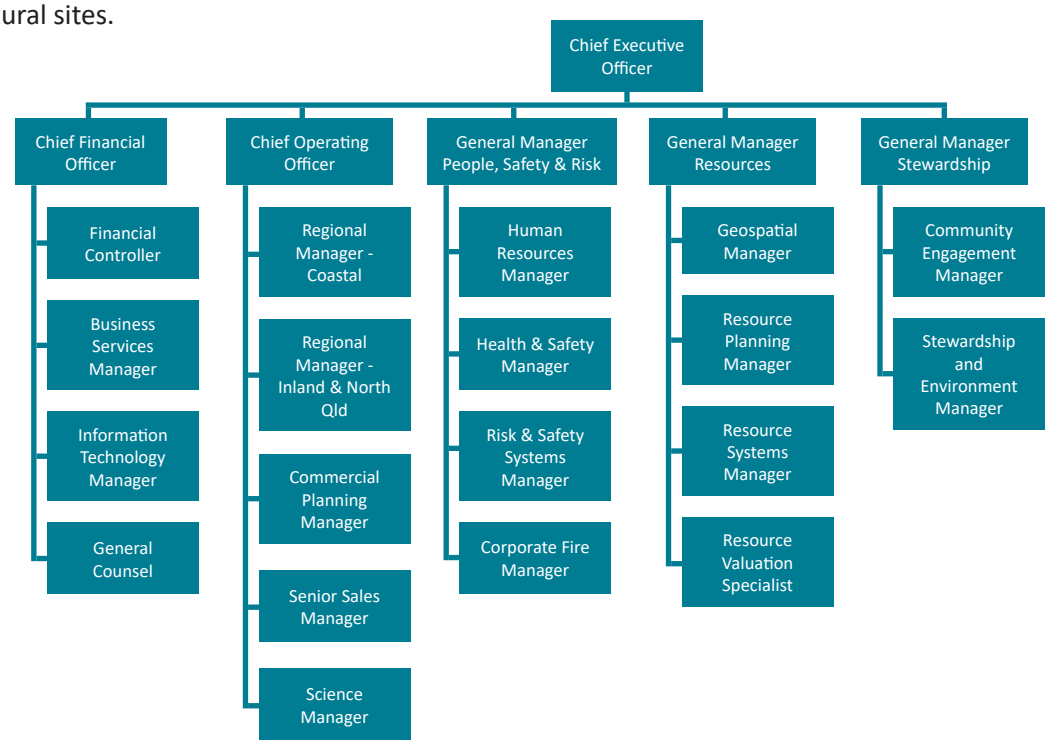


Figure 4 HQPlantations organisational chart summary

4. TENURE AND USE RIGHTS

4.1. Tenure and use rights

This section summarises our use rights and obligations across various tenures.

4.1.1. Plantation Licence and associated Deeds

The land and waters comprised in the Licence Area are State land and have been set apart and declared as State Forest under section 25 of the *Forestry Act 1959* and State Plantation Forest under section 32A of the *Forestry Act*. Documents that relate to the PL include the:

- Fire Management and Operations Plan
- Delegation Deed
- Operations Deed

Key aspects of these documents are summarised below. Capitalised words refer to defined terms in the various documents.

4.1.2. General use rights

The Plantation Licensee (HQP):

- has the exclusive right to deal with (Plantation) Natural Resource Products located within the Licence Area including to get and sell Natural Resource Products.
- has the exclusive right to re-establish Natural Resource Products on the Licence Area after harvesting.
- has the right to enter and remain in and use the Licence Area on a non-exclusive basis for Plantation Forestry and incidental purposes, including the right to construct and maintain the Plantation Licensee's Works and Tracks for Plantation Forestry.

Our rights to access and use the Licence Area:

- are co-extensive with the lawful rights of the public and others to enter and remain in, and lawfully use the Licence Area.
- include the right for HQP to contract with other persons for the sale of Natural Resource Products from the Licence Area.
- do not include any right for the Plantation Licensee or any Permitted Person to get and sell Natural Resource Products on Buffer Areas.
- is subject to any specific rights, restrictions or conditions imposed on all or any part of the Licence Area under the *Forestry Act 1959*, the PL, the Fire Management and Operations Plan and the Operations Deed.

Other use rights may be available subject to negotiation with the State and/or legislative amendments

4.1.3. Buffer Areas

We acknowledge that Buffer Areas are necessary for the safe and environmentally responsible management of the Licence Area and areas adjoining the Licence Area and that we:

- must comply with the Buffer Areas Obligations (see section 5.4.1 of this document).
- must not harvest, fell or otherwise remove or deal with any Forest Product or Natural Resource Product located within the Buffer Areas, except to the extent consistent with the Buffer Areas Obligations (e.g. to remove pine wildlings).
- do not have the right to sell or otherwise deal with carbon stored in a tree or vegetation, or carbon sequestration by a tree or vegetation in the Buffer Areas, except to the extent consistent with the Buffer Areas Obligations.

Except as provided for in the PL, the Operations Deed and the Fire Management and Operations Plan, in performing any activities in the Licence Area, the State must, so far as reasonably practicable, ensure that it does not unreasonably interfere with our rights and privileges in the Licence Area.

4.1.4. State Harvesting

The State has the right to harvest native Forest Products in Buffer Areas and certain hardwood plantations established prior to 1996, in accordance with the *Code of Practice for Native Forest Timber Production on State Lands 2014* and reasonable WH&S and notification protocols.

4.1.5. Quarrying

HQP may take without fees and use (but not sell) quarry materials from the Licence Area for Plantation Forestry purposes in the Licence Area and otherwise comply with its obligations under the Operations Deed, including use of quarry material for Joint Interest Access Routes (see below).

The right to get and use quarry materials in the Licence Area is not exclusive to HQP. The State reserves the right to get and use quarry materials from Buffer Areas of up to and including 5,000 tonnes per annum (agreed level) from any one site within the Buffer Area (including by granting a licence or permit to a third party allowing the third party to take such quarry material). The PL also provides for the State to take and use quarry material of greater than the agreed level from any Buffer Area or take and use quarry materials from any other part of the Licence Area subject to certain conditions.

Toolara gravel pit

4.1.6. Biodiscovery

Our rights do not include the right to use "native biological materials" in the Licence Area for "biodiscovery" (each within the meaning of the *Biodiscovery Act 2004* (Qld)).

4.1.7. Roads, assets and associated arrangements

The PL and Operations Deed clarify various dealings relating to roads and tracks and associated access arrangements. Issues covered include:

- dealing with roads used by the public and located within the Licence Area that have been constructed outside the boundary of the Dedicated Road.
- the allocation of rights and obligations (to HQP) with respect to plantation timber on Unformed Plantation Forest Roads that do not form part of the State Forest or State Plantation Forest, via their inclusion in the Licence Area.
- the obligation for HQP to obtain any consents that it may require to maintain and harvest plantation timber on the formed Dedicated Road setback and for the tending and taking of such timber.

We have a range of supporting infrastructure assets located on State lands outside the Licence Area including fire and communications towers and buildings such as residences, offices and workshops. Similarly, the State has a number of assets located within the Licence Area. The Operations Deed provides for reciprocal access and management arrangements for these assets.

There are roads within the Licence Area and on Relevant State Lands which are of joint interest to HQP and the State. For example, a road within an adjoining (Non-Licence Area) State Forest or National Park that provides access to a plantation within the Licence Area. The Operations Deed provides for the identification, planning and maintenance of these Joint Interest Access Routes, including funding arrangements.

4.1.8. Delegation Deed

The State has delegated certain functions and powers under the *Forestry Act 1959* to HQP as outlined in a Delegation Deed. This includes the designation and accreditation of Plantation Officers to monitor compliance with regulatory notices, to record contraventions and to manage and regulate the use of the Licence Area. The Deed also provides for Delegated Officers to issue certain permits in accordance with agreed guidelines. These include visitor use permits, occupation permits, apiary site permits and stock grazing permits.

4.2. Corporate Holdings

As at 30 June 2024, HQP owns corporate holdings (freehold tenure) totalling 10,855 ha. These were purchased for the purpose of plantation development.

4.3. Land rental arrangements

We have entered into land rental arrangements with other landholders for the purpose of establishing, managing and harvesting hardwood timber plantations. To secure its interests over these lands, we negotiate and register a *profit a prendre* over the property and pay an annual rental to the landholder based on the area planted.

4.4. Joint venture arrangements

We have joint venture arrangements with other landholders for the purpose of establishing, managing and harvesting timber plantations. Under such arrangements, the joint venture partners share the proceeds of plantation log sales in proportion to the agreed inputs from each partner, as detailed in a joint venture agreement. Most joint ventures relate to hardwood plantations.

4.5. Mining exploration

Queensland's *Mineral Resources Act 1989* provides the legislative framework for exploration, development and mining tenure in the State. Several types of mining tenements are granted and administered under this Act including exploration permits, mining development leases and mining leases.

While we have no authority to prohibit exploration permit holders from entering and conducting activities on HQP-managed lands, we do impose reasonable conditions to promote safe access, minimal disruption to other core activities, minimal site disturbance, adequate rehabilitation of disturbed areas and, where appropriate, compensation provisions.

Spotted Gum plantation, Abbeywood

4.6. First Nations People

HQP has developed a First Nations Engagement Framework to build strong and long lasting relationships with all First Nations Groups where our plantations grow.

Through this work, we identified many First Nations Groups and several communities with potential interest and connection to the areas we manage. See Appendix 2 for a map of these Groups.

The framework acknowledges their spiritual connection, ancestry, innate wisdom, and both ancient and modern culture and customs and that this is their Country.

Developed with First Nations People, the framework guides how we will develop or continue to grow genuine, meaningful and balanced relationships with local First Nations Groups, share our management plans, seek advice on protecting cultural heritage (see Section 5.5 for our legislative requirements), seek opportunities to work together when it's good for everyone, and discuss potential land use changes whether First Nations Groups have native title or not.

Native title is the recognition by Federal Australian law that some Indigenous people have rights and interests to land that comes from their traditional laws and customs. The native title rights and interests held by particular Indigenous people will depend on both their traditional laws and customs, and what interests are held by others in the area concerned.

Native title rights and interests may include rights to:

- live on the area
- access the area for traditional purposes, like camping or to perform ceremonies
- visit and protect important places and sites
- hunt, fish and gather food or traditional resources like water, wood and ochre
- teach law and custom on country.

The *Native Title Act 1993* (NTA) was enacted to recognise and protect native title. It:

- establishes a mechanism for native title claims
- sets out how and when native title is extinguished
- provides ways to validly undertake land and resource dealings (i.e. 'future acts').

Sharing knowledge at a NAIDOC Week event

The NTA also established the National Native Title Tribunal (NNTT) (www.nntt.gov.au) and Native Title Representative Bodies (NTRBs). The NNTT assists people to facilitate timely and effective native title outcomes. Set up under the NTA, the Tribunal is a federal government agency and is part of the Attorney-General's portfolio.

There are several registered native title determinations and claims over broad areas in south-east and coastal Queensland that encompass parts of the Licence Area. Details of current claims are on the NNTT's website. Where appropriate, HQP will work with the NNTT, the State of Queensland (through DPI's Forest Plantation Oversight Group) and other relevant parties, including registered native title claimants or their NTRBs, towards the resolution of claims. In some cases, where it has significant interests, HQP may seek to participate in the process as a registered interested party.

The issue of new permits as well as some prospective activities or 'future acts', such as establishment of new quarries may affect native title. Such activities are subject to 'Native Title Work Procedures' that are consistent with those used by the State.

To date there have been no requests by the native title holders to develop Indigenous Land Use Agreements over any areas on the DFA. Notwithstanding this, we are committed to working with First Nations Groups in recognition of their deep connections to the lands we manage for sustainable forestry and the First Nations Engagement Framework contains guiding principles and guidelines for when and how to engage.

4.7. Visitor management

4.7.1. Authorised access/activities

The PL requires that, where compatible with broader forest management objectives, we continue to permit existing legal uses of areas covered by the PL. In addition to grazing, bee-keeping and occupation permits, other permitted activities include:

- commercial photography and filming
- scientific permits to conduct research projects (including scientific collections)
- recreational activities (some subject to permits) including
  - forest driving by licensed persons in registered vehicles, on formed roads
  - horse riding (including endurance events)
  - competitive car rallies
  - fossicking (restricted to a defined area at Passchendaele Forest
  - camping (at designated sites managed by QPWS)
  - educational (nature) experiences for schools groups
  - bush walking and nature appreciation.

Activities are managed in accordance with visitor management guidelines, with conditions to protect the safety of permittees and other legitimate forest users, the commercial viability of forest operations and the environment. Further information is available on our website.

Visitors are generally not permitted to access freehold areas forming part of the DFA including freehold corporate holdings, land rental and joint venture partners' properties.

Horse riding in plantation f Forest

4.7.2. Unauthorised access

Parts of the DFA have been or are subject to various illegal activities including illicit substance cultivation, arson, unregistered vehicle use, unlicensed driving, irresponsible use of vehicles on (and off) forest roads, rubbish dumping, hunting, erection of signage, camping and/or unauthorised group activities. We record identified instances of illegal activity and liaise with the Queensland Police Service, the Department of Environment, Tourism, Science and Innovation (DETSI), neighbours (including neighbouring land management agencies), community groups, sporting and other interest groups to minimise the level of unauthorised activities and to assist in the development of reasonable response strategies. Overt and covert surveillance techniques are also used at some sites. We are working towards a collaborative framework with regulators and enforcement agencies to manage these activities which recognises our skillset, funding and capacity constraints.

Examples of signage at Beerburrum by the Queensland Government's Litter and Illegal Dumping Unit Compliance Operations (LIDCO)

4.7.3. Temporary prohibition of public access

Public access rights are periodically suspended to ensure community safety such as during periods of high fire danger, significant weather events and to enable effective plantation forestry management. Details are posted to our website, as well as signage and various forms of media. Physical barriers are also erected to restrict vehicular access in some areas.

5. ENVIRONMENTAL VALUES

5.1. Landscape context

In most cases, the native forest/plantation matrix within the DFA complements much larger areas of native forest in adjoining state forests, national parks, defence reserves and private forests.

Age-related structural diversity is important in plantations for reasons of sustainable timber production, fire protection, water table management and visual diversity. The size and shape of harvest coupes is determined by a range of factors including planting history, economic considerations, supply commitments, topography and age class. To the extent reasonably possible, structural diversity is also considered in harvest scheduling and plantation redesign.

A mosaic of age classes and buffers promote structural diversity

Southern Pines

We manage approximately 140,000 ha of Southern Pine plantations, including fallow areas. These are principally located along the coastal lowland strip in South East Queensland from Caboolture to Bundaberg, with smaller plantations also located in coastal Central Queensland (Byfield), North Queensland and in southern inland Queensland around Toowoomba and Stanthorpe.

The Southern Pine estate is mainly located on gentle to undulating topography, sloping up to about 15 degrees. Soils tend to be sedimentary in origin and generally range from yellow and red lateritic podzolics on the higher slopes to grey podzolics and podzols on the lower slopes. Small areas of red, yellow and grey earths and alluvials are also present. There are also some soils of granitic and metamorphic origin in Central and North Queensland.

Average rainfall is 900 – 1,500 mm per annum in South-East Queensland and 1,000 – 2,000 mm per annum in Central and North Queensland.

Southern Pine estate, Beerburrum

Araucaria

We also manage approximately 40,000 ha of Araucaria plantations, predominantly *Araucaria cunninghamii* (hoop pine). Araucaria plantations are mainly confined to the hilly to steep coastal and sub-coastal ranges in the headwaters of the Brisbane, Mary and Burnett River systems in South East Queensland (SEQ), although much smaller estates also exist in North Queensland on the Atherton Tableland. Average annual rainfall for SEQ Araucaria plantation centers ranges from 700 to 850 mm. Soils are typically well-drained and volcanic or metamorphic in origin.

Araucaria plantation, Mary Valley

Hardwoods

The hardwood plantation estate, of approximately 8,000 ha has primarily been established on gentle to undulating cleared agricultural and pastoral landscapes, mainly in the Burnett region and sub-coastal areas in the Mary River

Valley. Mean annual rainfall varies from 400 mm to over 900 mm. Frost is a risk in inland areas, especially in lower positions in the landscape. Soils are generally well drained are derived from a wide range of parent materials.

Hardwood plantation, South Burnett

5.2.Soil

Plantation productivity is a function of soil health and condition, together with other factors such as genetics, climate and pest and disease risk. The sustainability of our plantation estate in terms of growth is clearly and directly linked to the sustainability of land use practices.

Soil values that can be adversely affected by forest operations include organic carbon and nutrient status, pH, bulk density, soil structure, aeration and infiltration capacity, invertebrate and microbial activity.

To limit negative impacts on soil values, we:

- plan and implement activities to account for soil properties, particularly erosion hazard and compaction potential (e.g. harvesting and site preparation).
- implement guidelines to reduce landslip risks on steep sites, including exclusion of harvesting where the risk is considered high.
- avoid concentrating machine activity or remediate compacted areas following harvest.
- plan harvest access to minimise the need for new or upgraded tracks and crossings.
- implement harvest and site preparation systems that retain the majority of nutrient-rich organic material on site.
- account for fluctuating water tables and associated machine traffic so as to avoid operating on water-logging prone sites.
- undertake fuel reduction burning that emphasises the need to retain the nutrient-rich duff layer above mineral soil.

Our guidelines and procedures are based on research and extensive operational experience. Many reports have been published in peer-reviewed scientific journals or presented at conferences. To support continued improvement in operational performance, research and its application to forest management is periodically undertaken.

Araucaria plantations in Como Forest with retained vegetation in gullies and slip-prone areas

5.3. Water

Water values that can be adversely affected by forest operations include turbidity, nutrient status, chemical baseline and water based organisms, which may lead to adverse impacts to aquatic ecosystem function, a decline in potability for domestic consumption and reduced suitability for irrigation and other on-farm uses.

Our **Risk and Legal Compliance Register** identifies, at a broad level, the potential for activities to impact on water values. Our corporate standards expand on potential impacts to be considered when planning and implementing operations. Operation Plans provide site-specific assessment of risks and associated controls, and operations are monitored closely, including the use of Quality Audits (refer section 10) to provide a feedback loop on the effectiveness of our management.

Operational guidelines and site specific planning take account of soil properties (e.g. erodibility, soil moisture status, compaction risk), catchment size and stream power index and associated risks to water quality (e.g. increased run off, increased sediment transport and associated turbidity) prior to operations commencing. Watercourse protection and machinery trafficking guidelines reflect risks and potential impacts and are based on applicable research results combined with operational experience. Examples of controls used to protect water quality include:

- extensive use of fine debris retention as an integral part of plantation establishment operations.
- water course protection zones that take account of soil erodibility, slope (angle and length), catchment size and stream power index, and are based on accurate digital elevation models.
- machinery trafficking guidelines that limit the extent and severity of permitted compaction and encourage use of preventative techniques such as placement of harvest debris over snig tracks to reduce impacts.
- staff and contractor training that supports implementation of guidelines.
- selection of machine type or system (e.g. cable systems) to mitigate safety and environmental risks.
- reviewing plantation watercourse protection buffers between crop rotations to recognise and establish new plantations consistent with current guidelines.
- recognising riparian vegetation of special significance (for example gallery rainforest remnants) in management planning.
- managing Stock Grazing Permits and similar agreements on freehold lands to reduce environmental impacts.
- assessment of acid sulfate and potential acid sulfate soils in low lying plantations adjacent to estuarine environments.
- suspending operations during periods of prolonged wet weather or soil-saturated conditions to protect road surfaces and reduce off-site environmental impacts.
- designing and constructing watercourse crossings to protect water quality and maintain fish passage.

We work in partnership with various catchment-level water watch groups to undertake water quality monitoring on a network of permanent sites across our major catchments

Section 5.6 addresses contamination from chemical, fuel and oil pollutants.

Water monitoring, Imbil Forest

Watercourse crossings, like this one at Stony Creek Byfield, are designed to facilitate fish movement

5.4. Biodiversity

At the regional level, significant areas of native forest are protected under various forms of conservation tenure, including national parks. Accordingly, the area of native forest within the DFA that we manage is quite small when considered in the regional context. These areas total around 122,000[2] ha and are mainly within the Licence Area.

HQP has access to the State's Regional Ecosystems (REs) and Broad Vegetation Groups (BVGs) GIS layers which provide information on vegetation types in these native forest areas and their associated conservation status. These areas primarily occur as buffers and riparian zones surrounding plantation assets and represent a wide cross section of vegetation types typical of those that existed prior to plantation establishment. Some are gazetted as special management areas including Scientific Areas and Feature Protection Areas under the *Forestry Act 1959*.

Appendix 1 shows the extensive network of national parks and state forests adjacent to and near the DFA.

5.4.1. Management of native forest

Biodiversity values within the DFA are primarily associated with retained areas of native vegetation such as watercourse protection zones, retained native vegetation protective buffers ('scrub' breaks) surrounding Araucaria plantations, swamps, rocky outcrops and other buffer areas associated with the broader plantation estate.

In the context of the PL, **Buffer Areas** comprise:

(a) those areas within the Licence Area that are natural growth forest, natural growth woodlands and/or naturally occurring grasslands adjacent to areas of established plantation or Watercourse.

(b) Scientific Areas and Feature Protection Areas and plantations listed in Schedule 10 within the Licence Area.

Buffer Areas have a range of fire protection, social, environmental, aesthetic and cultural benefits in the landscape and, as such, we acknowledge that they must be protected and retained. Schedule 3 of the Operations Deed (Buffer Areas Obligations) sets out rights and obligations with respect to these areas and include our:

- right to take and sell pine wildlings and native foliage (excluding from Scientific Areas and Feature Protection Areas) but only to the extent that any such taking or selling does not compromise or damage the integrity of the Environment in Buffer Areas.
- obligation to perform appropriate fire management and wildfire control regimes in accordance with the terms of the Fire Management and Operations Plans.
- obligation to maintain the integrity of natural vegetation in a way consistent with sustainable management practices for plantation forests that are generally accepted in the Australian plantation forestry industry.
- obligation to perform certain defined pest control measures.

Furthermore, the Operations Deed permits us to undertake minor clearing of Buffer Areas in certain defined circumstances. Defined circumstances include to construct and build infrastructure (subject to certain area restrictions), fence, road or track clearing up to a 10 metre clearing width, to maintain road infrastructure such as drains and to remove or reduce imminent risks of personal injury or damage to infrastructure.

Our management operations in areas of retained native vegetation are focused on maintaining or enhancing biodiversity values and protecting the adjacent plantation resource. The frequency, timing and intensity of prescribed burning regimes seek to achieve a balance between protecting biodiversity values and protecting the plantation asset and other community values, especially community safety.

To assist with ongoing management of native forest areas within the DFA, we have developed a standard for **Biodiversity Management**. This standard describes the biodiversity values associated with the DFA (primarily related to native forest areas) and identifies the key threatening processes to those values and the manner in which biodiversity is managed and monitored with the objective of maintaining and enhancing key values e.g. through management of biosecurity threats, consideration of appropriate fire regimes, management of illegal and unauthorised activities, protection of threatened species, strengthening of riparian vegetation where required and establishment of long term monitoring programs to assess change over time.

[2]Including a small proportion on infrastructure lands

5.4.1.1. High Conservation Value Forest

Under both forest certification standards there is a requirement to identify areas under our management that may have High Conservation Value (HCV) and to ensure they are managed to maintain their special values. The Forest Stewardship Standard in particular provides a comprehensive set of guidelines for the assessment and defines HCVs as areas that possess one or more of the following attributes:

- **HCV 1:** Significant species diversity or high concentrations of threatened species (e.g. endemism, endangered species, refugia, seasonal migration areas).
- **HCV 2:** Significant landscape level ecosystems and mosaics.
- **HCV 3:** Rare, threatened or endangered ecosystems and habitats.
- **HCV 4:** Critical ecosystem services (e.g. watershed protection, erosion or flooding control, barriers to wildfire).
- **HCV 5:** Forest areas fundamental to meeting basic needs of local communities (e.g. subsistence, health, wellbeing).
- **HCV 6:** Forest areas critical to local communities' traditional identity (areas of cultural, economic or religious significance).

The Australian and Queensland Governments have pursued various extensive, high-level and consultative forest land use allocation processes to determine areas to be set aside as part of the permanent conservation estate and areas to be managed for long-term timber production.

Some forest areas in Queensland have also been internationally recognised for their significant conservation values and have been listed as world heritage areas (WHA) including K'Gari, the Tweed Volcano Group rainforests adjoining the New South Wales border (part of the Gondwanan Rainforests of Australia WHA) and the Wet Tropics WHA.

So whilst most large and significant HCV areas in Queensland have already been identified and placed under permanent protection tenures there are still some smaller areas in the landscape, some within or adjacent to the DFA, that need to be afforded a high level of protection.

Most HCV areas are protected in reserves outside the DFA

We have undertaken a HCV assessment in consultation with our stakeholders, and have identified several areas which we believe meet the definition of HCVs. These are listed in **Appendix 3**. We regularly consult and work with relevant stakeholders including local environmental management groups, ecologists and experts from within State and Local Government on the management and monitoring of these areas. A copy of the full HCV assessment report is available on request.

5.4.1.2. Rehabilitation of land to native forest

Conservation Handback Areas

We have a number of plantations and associated native forest buffer areas which will not be retained as State Plantation Forest beyond the end of the present crop rotation. These areas have some conservation value, with mature crop harvest, should it proceed, aimed at optimising harvest returns consistent with achieving a residual land/ site condition that facilitates long term inclusion in the reserve estate. As at June 2023 there were three such areas still within the Licence Area totaling approximately 1,200 ha (approximately 700 ha planted), as outlined in **Appendix 4**. Management of these areas is in accordance with agreed Conservation Area Rehabilitation and Handback Requirements. The desired conservation outcome is to restore the structure and floristics, as much as possible, of the original forest prior to the establishment of the plantation.

Other areas

From time to time there are areas within the DFA that are identified as not being suitable for plantation establishment or re-establishment for a variety of reasons (e.g. too rocky or in areas better suited for conservation). In addition, there are some sites previously occupied by infrastructure or old quarries, roads or log landings that may be targeted for rehabilitation. Where appropriate, these areas are managed to promote natural regeneration by species native to the area.

Using a planting spear with inbuilt water delivery to give native plants a great start on one of our revegetation projects.

Field day at Tinana Yards revegetation site. Restoring 30 ha of a flood-prone, weed-infested clearings adjacent to a high conservation value riparian zone on Tinana Creek.

5.4.1.3. Native forest conversion

With the exception of minor areas, as permitted under our PL, we do not convert native forest vegetation to plantations or non-forested land use. Plantation development on freehold land is confined to previously cleared areas.

Native forest areas associated with plantations are left undisturbed by management practices, apart from very limited 'infrastructure' clearing such as for cable logging ramps, 'tie-backs' and construction of harvest access tracks to avoid extensive side cutting or disturbance of watercourses. All instances of small-scale clearing are undertaken within regulatory requirements and additional forest certification limits and are offset by former plantation areas that, following harvest, are managed so that they revert naturally to native forest to strengthen water course protection or other special management zones.

5.4.2. Protection of endangered, vulnerable or near-threatened species and ecosystems

We maintain a list of endangered, vulnerable or near-threatened (EVNT) species that are known to occur or are likely to occur within the DFA. This includes species included on the Convention on International Trade in Endangered Species (CITES) Appendices 1 and 2, and any species or ecosystem listed as 'rare, threatened or endangered' under relevant state or federal legislation. We do not authorise the harvest of any species that are included in Appendix 1 of CITES.

DETSI's published WildNet wildlife records is used to search for records of EVNT species sightings to help identify areas of significant biodiversity value. This database is supported by field observations by our employees and contractors and consultation with relevant regulatory agencies and interest groups. Additional staff training of forest workers, including consultation with relevant regulatory agencies and interest groups, is provided to enhance awareness of EVNT species, their habitat requirements and potential management impacts.

We focus operations in areas of retained native vegetation on maintaining or enhancing biodiversity values and protecting the adjacent plantation resource. The frequency, timing and intensity of fuel reduction burning regimes seek to achieve a balance between protecting biodiversity values and protecting the plantation asset and other community values, including community safety. This approach is generally compatible with EVNT species management.

Where planned operations may impact on EVNT species, we take special measures to minimise any adverse impacts and may include conservation zones and/or other conservation measures for EVNT species and their habitats, such as customized fire or disturbance regimes. These measures are informed by species management plans, species recovery plans and conservation advice statements where they exist, such as for the mahogany glider (*Petaurus gracilis*), the southern cassowary (*Casuarius casuarius johnsonii*) the black-breasted button quail (*Turnix melanogaster*), the Nangur spiny skink (*Nangura spinosa*), *Grevillea venusta, Boronia rivularis*, the macrozamia species *Macrozamia pauli-guilielmi*.

In some instances, we develop and implement additional species specific management procedures where forest activities may pose a significant threat, e.g. koala protection during harvesting operations.

Staff undertaking Koala management training, Toolara SF

We collaborate with local groups to improve the protection and management of EVNT species. For example, we are working with Mary River Catchment Co-ordinating Committee (MRCCC) regarding implementation of the **Mary River Threatened Species Recovery Plan**. This plan is the first of its kind in Australia in that it focuses on a river system (rather than an individual species). It will bring together scientific, local and traditional knowledge to identify threats to threatened species in the Mary River and important ecological processes such as healthy riparian zones and food webs. Aquatic and riparian species such as the Mary River Cod, Mary River Turtle, Australian Lungfish and the Giant Barred Frog will be given special attention.

We are also working with groups including the Macadamia Conservation Trust, MRCCC and Healthy Land and Water regarding the **Southern Macadamia Species Recovery Plan**. Two of the four southern macadamia nut species occur within the DFA, the Bauple Nut (*Macadamia integrifolia*) and the Gympie Nut (*M. ternifolia*).

Giant Barred Frog (*Mixophyes iteratus*), Tinana Creek

5.5. Cultural heritage

HQP has a duty of care to avoid adversely affecting cultural heritage during management activities. Accordingly, we have developed a standard for the management of cultural heritage which includes:

- incorporating a risk assessment for cultural heritage sites into Operational Plans.
- training staff in the primary identification of cultural heritage sites.
- engaging with relevant stakeholders where cultural heritage sites are identified.

5.5.1. Indigenous cultural heritage

The *Aboriginal Cultural Heritage Act 2003* was enacted to protect Queensland's Aboriginal cultural heritage. It establishes a duty of care for organisations such as HQP to avoid adversely affecting indigenous cultural heritage during land management activities. This includes consultation with First Nations Peoples where there is risk of harm.

Our company standard for Cultural Heritage, complemented by information on DETSI's website, outlines the procedures we follow when dealing with Indigenous cultural heritage. Where sites are known to exist, or may exist, we will consult with the relevant First Nations Peoples, in accordance with these procedures.

Stone Axe located in situ at Benarkin

5.5.2. Non-indigenous cultural heritage

In accordance with the *Queensland Heritage Act 1992*, we have a duty of care to protect important cultural heritage sites. The Queensland Heritage Register is a list of places, trees, natural formations and buildings of cultural heritage significance. The register is available on the DETSI's website and we maintain an up to date version of the register as a GIS layer to be consulted during the development of operational plans.

We assess the importance of non-Indigenous heritage values on a regional basis with reference to relevant studies and forest planning instruments, and support the protection of important natural heritage and cultural, religious, spiritual and social heritage values, including consultation with local historians. Examples include the recognition and protection of historic homesteads and grave sites.

Forestry in Queensland has a long history

5.6. Pollution and waste management

While we seek to reduce our overall reliance on chemical use (refer section 8.4), we also take measures to ensure that our chemical application activities do not result in transport of chemicals into waterways or other sensitive areas. Protective measures include:

- guidelines for the responsible storage and application of chemicals, and the disposal of any residues.
- centralised control of herbicide purchases.
- contract conditions for supply and application of herbicides and fertiliser, aerially and ground-based that encourage best practice and innovation (e.g. use of UAV's, low drift nozzles and GPS tracking technology in aerial herbicide application).
- staff and contractor training in chemical application techniques and regular monitoring via in-house quality control systems (quality audits).
- prompt reporting and investigation of any incidents (e.g. herbicide spillage, overspray).
- evaluation of alternative chemical products and application technologies to reduce environmental and operator risks and improve effectiveness (e.g. closed-system herbicide transfer technologies for tank-filling, use of drones for application).
- specifying buffers around sensitive areas based on risk assessment that takes account of the application system, non-target values at risk and prevailing weather conditions.

Guidelines for aerial herbicide application ensure targeted results with minimal offsite impacts

With respect to the broader issue of pollution and waste management, operations are guided by our Standard for Pollution and Waste Management. This document covers a range of issues including:

- legislative requirements
- responsibilities (at various levels within the organisation)
- waste management 'hierarchy' principles (avoid, reuse, recycle, recover, safe disposal)
- waste disposal options[3]
- waste reporting obligations.

Illegal dumping is an ongoing challenge in some areas of our DFA. We use a number of strategies to try to manage this issue including signage, surveillance, use of contracted waste removal services, staff training in evidence collection and collaboration with police and the States Litter and Illegal Dumping Unit to prosecute offenders. In addition, each year we organise clean up Australia Day events and often involve our local stakeholders in helping to clean up problem site.

Members from the 4WD community and other stakeholders help HQP staff to collect rubbish illegally dumped in the forest during a Clean up Australia Day event at Beerburrum.

[3]All waste chemical and oil products and containers are taken off site for recycling or disposal.

5.7.Carbon

HQP seeks to increase awareness of the positive role plantations can play in the transition to a low carbon, circular economy through the capture and sequestration of carbon in both standing trees and harvested wood products. The core principles of our approach to climate change are outlined in HQP's **Climate Change Commitment Statement** , to align our business with the lower carbon future envisaged in the Paris Agreement (to limit global warming to 1.5°C by achieving net zero carbon emissions by 2050).

We are also adopting measures to monitor and actively reduce our greenhouse gas emissions, improving the resilience of our forests to adapt to the impacts, and mitigating the negative business effects, of climate change including:

- Assessing and reporting the quantum and the annual change in carbon sequestered within our plantation estate, as well as the carbon estimated to be captured in harvested wood products[4].
- Refining mechanisms to measure, monitor and mitigate carbon emissions.
- Utilising Science Based Targets Initiative (SBTi) and regulatory frameworks to establish targets for carbon emission reductions and progress reporting.
- Developing a comprehensive plan that applies sound governance in addressing climate change risk, adaptation and reporting.

House frames from Southern Pine provide long-term carbon storage

Collaborative trial with industry and research partners

[4]Accounting undertaken using Manulife Investment Management Carbon Accounting Protocols.

6. COMMUNITY RELATIONS AND LABOUR

6.1.Stakeholder engagement

We are committed to identifying relevant stakeholders and interested parties, both groups and individuals, directly affected by, or with an interest in, our management activities.

Land adjacent to our estate includes:

- State land containing native forest zoned for timber production or conservation, for example State Forest, Forest Reserve, National Park or unallocated state land.
- Commonwealth Department of Defence Reserves (e.g. Wide Bay and Shoalwater Military Training Areas adjacent to Fraser Coast and Byfield plantation estates respectively).
- State leasehold or freehold grazing land.
- freehold agricultural land.
- freehold urban and peri-urban development, especially adjacent to Beerburrum plantations.

We maintain a listing of current and potential stakeholder issues requiring active management plans in addition to a register of key stakeholder records of interactions with our stakeholders.

A **Complaints and Disputes Procedure** is publicly available on our website and outlines what steps stakeholders can take to make a complaint and how we will act to try and reach a resolution.

Our stewardship extends to all of the values associated with our forest estate. We seek to understand the perspective of our stakeholders as we establish, grow, harvest and protect our clients' forest investments while maintaining or enhancing the environmental and community values associated with the land.

The proactive management of community relationships and establishment of partnerships with stakeholders also aims to promote our credentials as a responsible manager of environmental and community values, building positive relationships and mutual understanding to reduce business risk.

In the long run, these outcomes are essential to achieving our stewardship goals and generating and preserving long-term investment value.

While maintaining a balance between economic, social and environmental considerations our social policy goals are to:

- provide a safe place to work
- respect the rights of all employees and contractors
- respect the rights of First Nations Peoples
- engage effectively with the community on social impacts associated with forest investments.

Stakeholder and community categories include:

- those who derive income from the business such as investors, employees, contractors and other providers of services or goods
- customers
- statutory authorities
- neighbours including those living on public access routes into plantations and local people living downstream of plantations
- community interest groups such as recreational, catchment, environmental and rural fire brigades.

Annual Clean Up Australia Day event organised by HQP's Beerburrum staff, involving local community groups and individuals, all with the common goal of keeping our forests clean.

We aim to manage, broadly and specifically, the:

- safety of all staff, contractors and the public
- rights of workers
- contribution of long term social and economic benefits to the community
- long term productive capacity of adjoining public and private land as influenced by threats arising on HQP managed land such as soil erosion, chemical use, fire, vermin, noxious weeds and wildings, plantation pests and diseases
- utility of adjoining land for the owners
- use of PL roads by the community for property access
- neighbouring assets such as fencing and public roads.

Positive relationships and mutual understanding and respect will be built through effective communication with stakeholders through:

- active participation in advisory groups
- strategic partnerships with stakeholders to achieve mutual goals
- identification and notification of stakeholders in advance of significant or new activities
- listening to and documenting the views of stakeholders
- responding to stakeholder concerns with action where required
- conveying our intent, values and forest management practices with effective print and digital communication packages.

We welcome meaningful participation by stakeholders in the development and implementation of forest management plans that potentially impact on stakeholders, and will facilitate such participation in accordance with our **Standard for Stakeholder Engagement** which requires:

- consideration and minimisation of impacts of forest operations where potentially impacting on neighbours
- timely notification where activities are planned that may impact neighbours.

Information that is not commercial-in-confidence is generally made freely available. Requests for information considered to be commercial-in-confidence are catered for on a case-by-case basis.

Our management decisions that affect stakeholders need to be consistent with PL obligations and commercial imperatives. We aim to resolve stakeholder concerns at the local level wherever possible and have established Complaints and Disputes procedures.

Replanted Araucaria plantation and native forest landscape, Mary Valley

6.2. Labour

HQP employs staff in various forest management and administrative roles, mostly based in regional centres close to the plantation base.

We engage a diverse contractor base to provide a wide range of services including plantation establishment and maintenance, fire protection, road construction and maintenance, research support, nursery support, seed collection and extraction, administrative support, harvest and haul services for delivered log sales and stevedoring and shipping services for export sales.

6.2.1. Workers' rights

We are committed to the principles of fairness and equity in dealing with workers rights and the encouragement of an inclusive and diverse workplace culture through merit based employment processes. We adopt a zero tolerance approach to any form of Modern Slavery, workplace discrimination, bullying or sexual harassment.

These commitments are demonstrated through:

- introduction of a Human Resource Management Framework which sets the standards and expectations in respect to our business conduct and practices when managing our key asset – our people.
- our Strategic Plan, which includes programs for leadership development, corporate training and professional development.
- good HR governance through compliance with legislation.
- a fair and comprehensive Code of Business Conduct outlining the expectations on all employees as to 'the way we do business'
- early resolution of grievances and disputes through an active workplace consultative committee.

6.2.2. Diversity, Equity and Inclusion

At HQPlantations we believe and respect that diversity, equity and inclusion are central to our values of Commitment, Drive, Integrity, Respect, and Adaptability.

These values will drive our diversity, inclusion and belonging agenda, that promotes the need for all our people to be open to different ideas and cultures and support this in our workplace. This means a commitment to listening to each other (including our customers and stakeholders), treating everyone fairly, being inclusive, making people feel that they belong, and valuing different perspectives.

We are committed to providing an organisational culture and workplace that fosters diversity, inclusion and belonging throughout the company. This commitment and the way we will achieve it are outlined in our Diversity, Equity and Inclusion Policy, publicly available on our website.

6.2.3. Workplace Health and Safety

HQP's Health, Safety & Wellbeing Policy is publicly available on our website. The policy is supported by a Health and Safety Management System which gives effect to our corporate commitment to health and safety (H&S) and articulates objectives, strategies, key performance measures and targets for health and safety. The system forms the basis for operational planning, delivery and performance assessment across our organisation.

The Health and Safety Management System includes standards, guidelines and other resources which relate to:

- General system management – including roles and responsibilities, planning, communication and review
- Event management – including reporting and analysis
- Risk management – including hazards and risk assessments, inspections, safe work procedures and Personal Protective Equipment (PPE) guidelines
- Emergency management – including evacuations, and first aid
- Third party management – including contractors and visitors
- Health and wellbeing management – including health management programs, rehabilitation, drug and alcohol policy, fitness management, injury management and fatigue management guidelines.

Planting Southern Pine

- Various health initiatives including:
  - Voluntary Health Assessment Program including health checks and influenza vaccinations
  - mental health first aid training and mentors
  - Employee Assistance Program
  - promotion and support of various health awareness campaigns (e.g. RU Ok Day, Turn it Blue, Wear it Pink)
  - fatigue management.

We communicate and consult with workers on H&S issues via a number of strategies including:

- quarterly meetings of the H&S consultative committee, comprised of an elected representative from each work group.
- H&S contractor forums held regularly throughout the State to ensure all contractors are consulted and have the opportunity to provide feedback on H&S issues.
- safety alerts shared across staff, contractors and other forest management companies.
- safety inductions.

We review H&S performance regularly at the Executive Leadership Team and Board level, including reviews of H&S lead and lag indicators.

Operations and workplaces are subject to periodic internal and external audits to identify system deficiencies and promote continuous improvement.

Staff Field Day looking at a wide range of topics, including harvesting

6.2.4. Training and development

Training is an integral part of our H&S system and includes training across a wide range of activities.

We identify opportunities and implement appropriate actions to support employment and skills development of forest workers, such as:

- support to attend conferences, workshops, company meetings and related company visits to enhance skills development and networking.
- support to develop business management skills.
- job rotation and relieving opportunities to improve multi-skilling across field-based and administrative roles.
- facilitating contractor development including the provision of fire fighting training and multi-skilling to provide continuity of seasonal work opportunities and encourage a stable, competent contractor workforce.
- provision of vocational work for students (including recent graduates).

Accreditation and training records are held on a corporate training register.

Our staff and contractors are provided with comprehensive training and resources to manage wildfires.

7. BENEFITS FROM THE FOREST

7.1. Plantation forest products

The growth and profitability of the Queensland forest industry and the quality of its timber products are being strengthened through continuous improvement in HQP's forest growing efficiency, plantation production, product quality and sustainability.

We are primarily focused on the sustainable production of high value sawlogs and plylogs (**Figures 5**) for domestic sale. By-products such as roundwood and pulplogs are also produced. Our production is mostly sold domestically, with the primary conversion of logs occurring at processing facilities located within two hours' drive of the plantation, promoting capture of economic benefits at the local and regional level in terms of growing, harvest, transport and processing. In many instances, secondary processing facilities are also located in regional centres.

7.2. Chain of custody

To allow Chain of Custody (CoC) tracking by processors and manufacturers of forest products derived from the certified areas of the DFA, we provide assistance to help customers with their various verification processes in response to specific requests.

7.3. Non-timber forest products

The sale of non-timber forest products and other permitted activities associated within the DFA provide a range of benefits to local and regional communities and include:

- cattle grazing
- apiary site permits
- Occupation Permits (e.g. communications facilities that benefit local communities)
- seed and genetic material sales
- native foliage sales
- income diversification for hardwood plantation partners involved in land rental arrangements
- commercial photography and filming
- research projects
- various recreational activities as outlined in section 4.7.

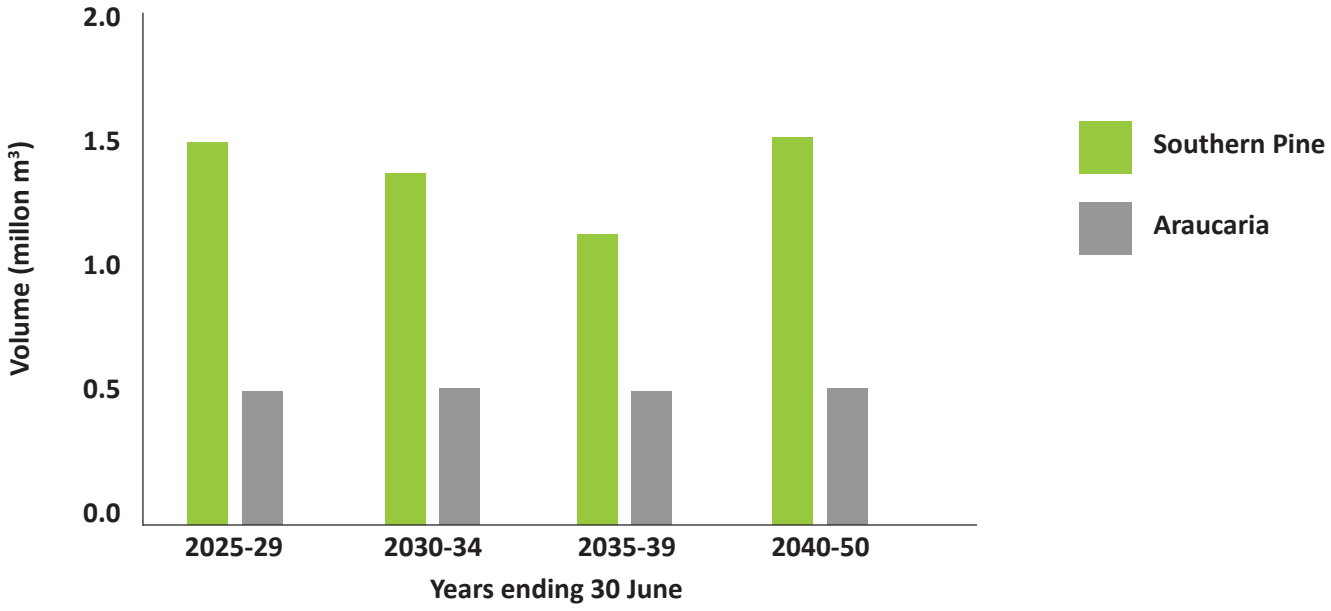


Figure 5 Average annual projected future wood flow (per 5-year period) for Southern Pine and Araucaria, SEQ.

8. PLANTATION OPERATIONS

8.1. Species selection and matching to sites

Species grown for timber production include several 'Southern Pine' species, Araucaria and several hardwood species. Species selection is predominantly determined by the requirements to maximise the return to the investors, meet commitments to customers and minimise business risk. We do not use genetically modified organisms.

Southern Pines (*Pinus* species)

For convenience, and to support international marketing, our Pinus plantings are collectively called 'Southern Pines'. The main Southern Pine taxa grown include:

***Pinus elliottii* var. *elliottii* (PEE) – Slash Pine:** Currently makes up less than two percent of the Southern Pine estate by area, restricted to SEQ. Slash Pine has excellent wood properties, stem form and tolerance to water-logging. New plantings of Southern Pine in SEQ are now exclusively planted with the Hybrid Pine. The species will remain preserved in clone banks, for use in the tree breeding program, once the remaining plantations have been harvested.

***Pinus caribaea* var. *hondurensis* (PCH) – Honduran Caribbean Pine:** Currently makes up about 15 percent of the Southern Pine estate by area. PCH is the dominant species planted in Northern Queensland (NQ). PCH is more productive than PEE, is better adapted to tropical environments and has greater drought tolerance, although it has lower wood density and generally poorer form. Following extensive damage to plantations in the Ingham/ Cardwell area in the wake of severe tropical cyclone Yasi in February 2011, a number of the PCH plantations have been replaced with the closely related yet more wind-firm P. caribaea var. caribaea (PCC) on poorly drained sites.

***Pinus elliottii* var. elliottii x *Pinus caribaea* var. *hondurensis* hybrid (PEE x PCH) – Hybrid Pine:** This Hybrid Pine currently makes up 80 percent of the Southern Pine estate by area. It exhibits the best properties from both of its parents and is the dominant species planted in SEQ and Central Queensland (CQ).

***Pinus taeda* (Loblolly Pine) and *P. radiata* (Radiata Pine):** These minor plantings comprising three percent of Southern Pine estate by area, restricted to SEQ higher elevation inland areas of Gambubal, Passchendaele and Pechey, where the cooler climate restricts planting of the hybrid or PCH.

Mature Southern Pine plantation (*Pinus elliottii* var. *elliottii*), Toolara Forest

Use of Southern Pines is based on early species trials in Queensland seeking softwood species suited to the generally infertile coastal lowland sites available for plantation development. Timber production from these species has been pursued due to:

- maximised returns on investment.
- reduced risk resulting from the large body of operational and silvicultural experience, and research knowledge developed over a long period, including over 50 years of tree breeding to improve growth, form and wood properties.
- development of a large domestic processing industry in Queensland based on Southern Pines as the basic raw material.
- the mix of Southern Pines, when appropriately deployed, being relatively drought tolerant and offering silvicultural management flexibility over a wide range of sites enabling the accumulation of substantial estates to supply industry.
- wood characteristics of the Southern Pines, which make them versatile for a broad range of processes and uses, with a large underpinning market in the building industry. These product markets are well established.
- lower risk and stable markets through supply commitments to industry.
- reduced risk from pest and disease attack.

The need to limit the spread of introduced species, provenances or populations used in plantations, especially to adjacent native vegetation, to protect its biodiversity values is recognised.

The impact of Pinus wildlings from plantations on neighbouring lands is managed in accordance with guidelines in the document **Management of Southern Pine Wildlings Originating from HQPlantations Lands**.

Araucaria

Araucaria cunninghamii (Hoop Pine) is one of the few endemic rainforest species that has been successfully domesticated for timber production. It is well-adapted and occurs naturally on the majority of sites where it is currently growing in plantations. *Araucaria bidwillii* (Bunya Pine) has also historically been planted on some frost-prone sites within the broader Araucaria estate however these sites are generally replanted with *Araucaria cunninghamii* using improved silvicultural techniques.

Araucaria plantations utilise improved genetic material through tree breeding programs derived from trees originally selected in natural forests occurring naturally within and surrounding the current plantation estate. These plantations do not present a significant risk in terms of natural spread or gene flow.

Mature Araucaria plantation (*Araucaria cunninghamii*)

Hardwoods

The hardwood plantation estate is dominated by species that occur naturally in SEQ. Spotted gum (*Corymbia citriodora* sub. spp. *variegata*) is planted on most sites, Western white gum (*Eucalyptus argophloia*) is planted on frost-prone sites and Gympie messmate (E. *cloeziana*) is planted on higher rainfall sites on deeper soils. While most hardwood plantations adjoin cleared farmlands or heavily modified grazing lands, observations to date suggest that where hardwood plantations adjoin native forest areas, they have not become invasive.

Hardwood plantations

8.2.Seed and nursery production

All Araucaria and Southern Pine seed is sourced from our own seed orchards, derived from our long-term tree improvement programs.

The Toolara nursery, which produces all our Araucaria and Southern Pine planting stock, is accredited under the Nursery Industry Accreditation Scheme, Australia (NIASA). Accreditation is based on adherence to guidelines and recommendations to ensure quality control and crop hygiene, particularly disease, pest and weed control and nursery hygiene. From time to time given seasonal pressures we may source planting stock from qualified third party nurseries.

Controlled pollination forms part of an extensive breeding and testing program supporting the production of high quality Southern Pine seed

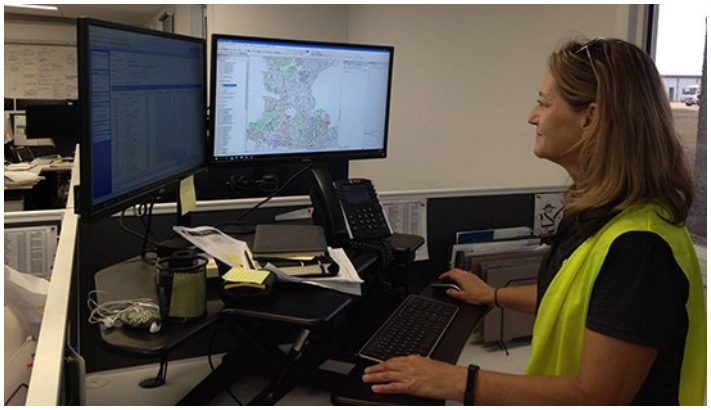
Toolara Nursery staff assess a seedling germination trial

8.3.Silviculture

Southern Pines

Southern Pines are mainly grown for sawlog production over a 26-28 year rotation. A typical silviculture regime is as follows:

- Three year tactical harvest plan sets out areas scheduled for harvesting and re-establishment and identifies any key planning considerations that may be required such as major roading projects, social impact assessments, planned nursery stock/seed demand.
- Operational planning commences 12 months prior to harvesting, on a site by site basis, how a plantation will be harvested and re-established with regard to a range of legislative, environmental, social and economic criteria.
- Site preparation, with a focus on debris retention and minimal inputs needed for effective establishment. Where possible, re-planting occurs along existing mounds or rows.
- Pre-plant tending, typically via aerial herbicide application.
- Hand planting when soil moisture is acceptable.
- Survival counts and refilling where required.
- A single fertiliser application within the first 12 months on some sites depending on soil type and past fertiliser history.
- Post plant weed control using a combination of chemical and mechanical techniques. Generally, weed control occurs within the first 12 months plus a later age tend if woody weeds are a problem.



Operational plans are developed for every site activity and identify any safety or environmental hazards that need to be managed

Chopper roller breaks down larger debris prior to planting, maximising debris retention

Contractors plant container seedlings by hand when soil moisture is adequate

Araucaria

On average to above averagesites, Araucaria is grown for high value clearwood over a 45-50 year rotation. Elsewhere, a standard sawlog regime is favored. A typical silviculture regime is as follows:

- Tactical and operational planning as for Southern Pines.
- Site preparation, with a focus on maximum debris retention and minimal inputs needed for effective establishment.
- Pre-plant tending, typically via aerial herbicide application.
- Hand planting when soil moisture is acceptable, with the adoption of machine planting (and watering) now widening the available planting window.
- Fertiliser is generally not required, except on specific sites (e.g. compacted ramp sites).
- Post plant weed control using a combination of chemical and mechanical techniques. Generally, two to three treatments are applied within the first 12 months plus one or two later age treatments for access, woody weed control or to reduce habitat suitability for rats which can damage young plantations. Araucaria can tolerate a number of herbicides that are used to target a wide weed spectrum, allowing post plant aerial spraying to occur. This has significant H&S and economic benefits, especially on steep slopes where access is difficult.
- On average to above average sites (depending on location and terrain), pruning is carried out on the most vigorous, straight 350 to 400 stems per ha at age 10-12 years, to a height of 5.4m.
- Pre commercial thinning (PCT), involving the early removal of unpruned stems, at around pruning age, occurs on areas that are pruned to encourage clearwood production on the pruned section of the remaining stems. Unpruned stands are grown until clearfall (i.e. no commercial thinning). For older stands that did not receive PCT, commercial thinning is an option, subject to access constraints and market conditions.

Hardwoods

The current hardwood plantations were originally established by the State to produce high value timber products, including sawlogs, roundwood and composite products on a 25 year rotation basis, commencing in 2025. A subsequent State Government commissioned independent review of the hardwood plantations showed that overall the program would not deliver the alternative hardwood sawlog resource as intended within the required 25 year timeframe. As a consequence an agreement was reached in early 2019 to end the program and release HQP from our obligations.

We are currently in the process of optimising these hardwood plantations to address the commercial risk issues associated with increasing climate variability, pests and diseases and the small and scattered nature of the plantations throughout SEQ.

Araucaria plantations in Branch LA, Imbil (Borumba Dam in background)

8.4. Chemical use

We are committed to reducing our reliance on the use of chemicals for our forest management activities, where an equivalent or better economic, ecological and environmental outcome is possible. Specifically, if chemical use is required it is our preference to use low toxicity and low residual formulations less frequently, whilst utilising guidelines to ensure targeted application minimises offsite impacts.

Silvicultural practices are regularly reviewed, with a view to developing techniques that use fewer inputs to achieve better economic, ecological and environmental outcomes. This work is supported by a long-term commitment to applied research.

Initiatives supporting reduced inputs for plantation silviculture include a focus on only those weeds known to impact on plantation growth and widespread use of debris retention which in some cases can suppress weed regrowth and reduce the need for herbicides, as well as maintaining important soil organic matter, nutrient pools and soil moisture. Monitoring trials are in place to evaluate new approaches to weed control, including the post-plant aerial application of knockdown herbicides, use of drones for targeted application and product evaluations of lower risk products.

Our adoption of such strategies has seen a significant reported reduction in, and better targeting of chemical use over a number of years.

Chemical manufacturers do not always include specific reference to 'forestry use' in their product labels. Where we seek to use such chemicals, we must apply for an "off-label' permit from the Australian Pesticides and Veterinary Medicines Authority (APVMA). Permits are issued for defined time periods and are subject to specific conditions.

A review of long-term growth trends across a suite of fertiliser trials in coastal Southern Pine plantations revealed that on most soil types where phosphorus had been applied in the first rotation, there was little benefit to be gained in re-applying similar rates of phosphorous at time of second rotation establishment. Accordingly, HQP has revised its fertiliser prescription resulting in reduced (<50%) application rates and areas. Supplementary trials have been established to monitor long-term growth impacts associated with this changed practice.

Only chemicals registered for use in Australia are used and for each product an Environmental and Social Risk Assessment is undertaken to determine if it can be used safely, any restrictions on sites it can be used on and techniques it can be applied by and to evaluate lower risk alternatives.

Aerial spraying for weed control

8.5. Plantation growth and yield regulation

Plantation yield projections are underpinned by customised growth models, inventory surveys, permanent growth plots and silvicultural research. Inventory stages in plantations occur at an early age and after major events such as wildfire, thinning or wind-throw events. The introduction of pre-harvest inventory is proposed for some plantation types to support a transition to mill door log sales.

Our yield modelling system has been confirmed to be sound by independent reviews.

Accurate mapping of plantation boundaries feeds into the GIS and inventory systems

Assessment of permanent growth plots feeds into plantation yield predictions

8.6. Monitoring long-term plantation productivity

We maintain an extensive network of permanent growth plots across different plantation species, and growing regions. These plots support the plantation yield regulation system and enable customised growth models to be developed for different combinations of species and growing regions. Long-term comparisons of year-on-year site index[5] trends for the various species/growing regions indicates no evidence of second or subsequent rotation decline associated with any of the major plantation species. Decline in production would indicate a loss of soil, nutrients or health issues. In fact, recent revisions to growth models indicate a trend of increasing productivity.

We also maintain an extensive network of research trials that enable us to compare long-term plantation productivity under different combinations of site, site management, genetic and silvicultural treatments. Results from many of these trials are documented in internal research reports and, in some cases, as published papers in peer-reviewed journals.

Examples include a long-term trial at Yarraman to monitor soil compaction in an Araucaria plantation under varying machine trafficking conditions. As well, an extensive series of genetic gain and species (taxa) comparison trials enables informed decisions regarding genetic deployment. Many of these trials are designed to enable long-term comparisons of growth, form, wood quality and grade recovery.

[5]Site index is the estimated average height (m) of the tallest 50 stems per ha at age 25 years

8.7. Plantation harvesting

Plantation management aims to produce a range of forest products including sawlog, plylog and pulpwood. Options exist in managing the crop in regard to thinning and age of harvest events. Such options can be utilised to enhance product development, stand health and commercial results.

Clearfall typically occurs at age 26 to 28 years for Southern Pines. For Araucaria, clearfall age is around 50 years, although 40-45 years is targeted for areas planted with improved genetic stock that have grown under a low stocking regime from an early age. Harvesting has commenced in some hardwood plantations on a limited basis.

Harvesting is conducted within environmental guidelines to limit on and off-site disturbance and to maintain site productivity. Guidelines relate to implementation of buffer zones, limits on the placement of harvest extraction tracks, restrictions on locations where log processing can occur and guidelines on tree felling adjacent to sensitive areas such as native forests.

Most harvesting operations are fully mechanised and provide highly productive and safe work environments. Exceptions occur in some older plantations and on difficult terrain where either tree size or access is beyond safe machinery capabilities. In these cases felling and/or log making may occur manually with chainsaws following a detailed risk assessment process.

The key harvesting systems fall broadly into two categories, ground-based harvesting and cable harvesting.

Selection of the appropriate system for a particular plantation unit is based on consideration of:

- safety
- environmental impact
- customer requirements
- cost
- productivity in relation to terrain, slope and soil conditions.

Ground based harvest systems vary from long or tree length harvest to cut to length forwarder based operations. These systems utilise low ground pressure and other modern harvesting machinery and integrated harvesting systems (mechanical falling, processing, forwarding, loading and hauling) to minimise site disturbance and maximise operational flexibility during wet conditions. Cable extraction or shovel logging systems that utilise specialised equipment on a level-swing excavator are used on sites too steep for standard ground based systems.

It is a requirement for harvesting operators to demonstrate competency from a safety, environmental and operational perspective. Contractors are expected to operate with a high degree of self-management and to embrace these commitments by providing a high standard of production and operating performance.

Timber harvesting is carried out by contractors directly engaged by HQP.

Folding skel truck commonly used for Araucaria logs

Southern Pine ground based harvesting.

Selection of HQP contractors is based upon a range of criteria including:

- experience and reliability
- past environmental, safety and production performance
- machinery capability for the task and terrain
- price.

For thinning operations, damage to retained stems is monitored and recorded against contractor performance.

Most Southern Pine log production in SEQ is converted to sawlogs

Using non destructive sampling tools to assess wood quality to support our marketing and genetic improvement strategies

8.8. Efficient use of forest products

Our commercial objectives are managed via the Long Term Plan, having due regard to safety, economic, social and environmental requirements of relevant laws and forest certification standards. We focus on creating and enhancing asset value through:

- maintenance and enhancement of comprehensive resource assessment and yield regulation systems to provide detailed and timely information on the projected availability of various plantation products.
- commitment to long-term tree breeding to improve commercially important traits such as volume, stem form, branch angle, inter-node length (Araucaria), site adaptation and various wood properties.
- silvicultural focus on production of high value products such as sawlogs and ply logs. For example over 90 percent of Southern Pine log production in SEQ is converted to sawlogs and ply logs (95 percent by value). As well, pruning and heavy early thinning occurs on some sites (e.g. some hardwood and higher quality Araucaria sites) to improve the value of butt logs.
- emphasis on competitive sales processes and terms for plantation logs.
- continuing research into log optimization and value recovery.
- management of environmental impacts to maintain soil health and nutrition.
- utilising planning and performance review processes to ensure expectations are met in regard to production, protection and learning.
- forward planning, construction and maintenance of the plantation road network and liaison with relevant authorities regarding regional transport networks (including port authorities in some locations) to ensure safe and efficient transport of logs.

8.9. Pests and diseases

The **HQPlantations Pest Management Standard** provides guidance for dealing with (plant and animal) pests that are declared under the *Biosecurity Act 2014* and *Biosecurity Regulation 2016*. The standard is also referenced in PL conditions. Various government and other websites provide suitable information regarding the identification and management of declared pests. This is supported by local training and liaison with officers from regional councils and DPI.

Pest management is supported by an integrated GIS system which allows for pest occurrence mapping and treatment activities to be captured. Treatment plans are based on risk-based decision making for example prioritising treatment towards areas with high capacity for spread (e.g. main roads and active harvesting), controlling new and isolated infestations and focusing on areas where offsite impacts may be higher due to environmental values and being adjacent to neighbouring properties. Some declared pests of concern that occur within the DFA include Giant Rats Tail Grass (*Sporobolus pyramidalis*), Groundsel Bush (*Baccharis halimifolia*), Mother of Millions (*Bryophytum* species), Siam weed (*Chromolaena odorata*), feral dogs and feral pigs. HQP have developed a **Pest Management Plan for Invasive Ants** to minimize the risk of ant incursion on HQP managed lands, outline an initial response and compliance with existing regulatory control programs.

We are a member of the State Lands Pest Management Committee and provide regular reports of company pest management activities to this forum.

For plantation-specific damage agents, we have a **Biosecurity and Forest Health Surveillance Strategy** which is resourced by a dedicated Plantation Health Specialist (PHS). The PHS's role includes the identification, assessment, monitoring and prioritisation of potential damaging agents to the plantations (and surrounding native forest). The PHS maintains an active network of contacts with experts in relevant fields to provide diagnostic and other support services. The PHS also participates in various National and State committees related to plantation health such as the National Sirex Co-ordinating Committee.

Current and potential pests and diseases and other potential damage agents associated with the key plantation types are summarised in **Appendix 5**. Good plantation health, achieved by site selection, site preparation, fertilising, plantation maintenance and spacing, is the key to minimising disease and insect attack.

We use an integrated approach to pest management based on the complimentary use of mechanical and chemical application techniques selectively applied as a regime based on a good understanding of pest life cycles and effects on plantations.

In conformance with national guidelines, we utilise a range of biocontrol agents to control plantation tree pests or to reduce the impact of serious environmental weeds. Examples include:

- deployment of a nematode (*Beddingia siridicola*) and parasitic wasps to limit the impacts of Sirex wood wasp (*Sirex noctilio*) on *Pinus* plantations.
- participation in national research trials to develop biocontrols for a range of pests such as Californian pine aphid (*Essigella californica*) and weedy *Sporobolis* grasses.
- release of approved biological control agents to suppress Weeds of National Significance, including lantana (*Lantana camara*) cat's claw creeper (*Dolichandra unguis-cati*), and Madeira vine *(Anredera cordifolia*).

Jewel beetle damage on Cat's Claw Creeper, a Weed of National Significance.

We have also committed significant funding support to the National Response Plan to minimise future impacts of the Giant Pine Scale (*Marchalina Hellenica*) outbreak detected in Victoria and South Australia in 2015.

8.10. Fire

Loss of plantation assets through wildfire is identified as our greatest asset risk. It is therefore necessary to have in place an effective fire management system to eliminate or mitigate damage from fire.

With respect to the Licence Area, our Fire Management Policy states:

All fire management activities managed by HQP will make people our priority and minimise the risks to our assets, our neighbours and the wider environment.

HQP maintains a Corporate Fire Management System (CFMS) based on four fundamental principles:

- *The health and safety of our people is our highest priority.*
- *Protect our assets through sound risk and commercial management practices.*
- *Fire management is primarily based on prevention, early wildfire detection and weighted suppression.*
- *Foster key partnerships and work collaboratively with all stakeholders in fire management.*

Fire protection strategies include staff and contractor training, communication and detection technology infrastructure and hardware, fire equipment, surveillance, firebreaks, access, water supply, fuel reduction burning, fire fighting, logistics, inter-operability and co-operation with other fire agencies and management.

Planning is a key element of fire management. Components include:

- long term forward planning (plantation design, with respect to firebreak system, access, species, age, class mosaic planting, is considered in tactical and operations plans).
- short term forward planning (annual protection and maintenance program, resources and external support).
- fire preparedness (training and competency, access to human and equipment resources, weather information).

Prescribed burning reduces fuel loads

8.10.1. Fire management on and around the Licence Area

The **Fire Management and Operations Plan** (FM&OP) is a deed between the State of Queensland, HQP and the Fire Commissioner, Queensland Fire Department (QFD) for the control, prevention and management of fire on and around the Licence Area. Broadly, the parties' responsibilities are as follows:

- The State (jointly through DNRME, DETSI & DPI) is responsible for the management of fire on Adjacent State Land including pursuant to the *Nature Conservation Act 1992*, the *Forestry Act 1959* and the *Land Act 1994*.
- The Fire Commissioner is responsible for managing the operations of QFD including, amongst other things, registration of Rural Fire Brigades under the *Fire and Emergency Services Act 1990*.
- HQP is responsible for the management of fire on the Licence Area pursuant to the PL, the *Forestry Act 1959* and the *Fire and Emergency Services Act 1990*.

The FM&OP obliges us to become a **Plantation Rural Fire Brigade** and to comply with the **Plantation Licensee Fire Management Plan** and minimum standards obligations. These ensure that fire fighting equipment, detection and surveillance resources, as well as related training, are consistent with good fire industry practice. In addition, regional (or sub-region) Fire Management Plans are also required. Regional plans define the protection program and cover protection strategies and joint planning arrangements. They include maps showing forest buffer areas, access roads/tracks, firebreaks, helipads, assembly points, water points, high risk areas, burning history, and prescribed burning proposals.

Under section 68 of the *Fire and Rescue Service Act 1990*, as an occupier of land, H*QPlantations employees can enter land within 1.6 km of the boundary of the Licence Area to extinguish fires which constitute a risk to the Licence Area. If it is practical to do so, HQPlantations must first notify a prescribed person (excluding an officer of its Plantation Rural Fire Brigade).*

The FM&OP requires the State to provide reasonable notification to HQP regarding the issue of Fire Permits issued over Neighbouring Lands (within three kilometres of the Licence Area) including the opportunity for us to comment on the conditions applying to the proposed permit.

We must obtain a Fire Permit prior to lighting any fire on the Licence Area. Subject to several conditions, especially the detailed provisions outlined in the **Plantation Licensee Fire Management Plan**, the Fire Commissioner may issue a Fire Permit for a Burn Period on an annual basis (Annual Permit).

Fire management obligations on Joint Management Areas

HQP and the State acknowledge and agree that we have common areas of interest in relation to the control, prevention and management of fire on lands which are not within our joint Area of Responsibility and that the effective control, prevention and management of fire on each party's Area of Responsibility will require the co-operation and co-ordination of the other party. Accordingly, HQP and the State have developed and comply with a Joint Management and Response Protocol, including the establishment of Joint Management Committees for geographic regions of the Licence Area.

Wildfire in Cooloola National Park threatens adjacent Toolara plantation estate.

8.10.2.Fuel reduction burning

Fuel reduction burning is the skillful application of fire to vegetation and related fuels under conditions of weather, fuel moisture and soil moisture that will allow confinement of the fire to a predetermined area, at rates of spread and intensity appropriate to providing planned benefits with minimum damage at an acceptable cost.

Desirable outcomes for most fuel reduction burns are:

- no significant scorch to tree canopy through average flame heights of no greater than one metre
- 70%-90% coverage in a mosaic pattern
- approximately 75% consumption of available fuels with retention of the surface organic (duff) layer
- rates of spread in the range 40-100 m/hr
- intensities below 500 kw/m.

Fuel reduction burns are generally completed between May and August. Autumn burns may be warranted where fuel types require warm stable weather conditions or conditions suit older age plantation burns. Burning can be carried out by both aerial and ground ignition means.

The network of tracks and firebreaks we maintain, combined with variations in vegetation type within tracked areas, enables a mosaic of burnt and unburnt areas to be maintained across the DFA.

As well as benefiting plantation protection, this contributes to biodiversity at the landscape scale. The frequency of burning for any particular forest area is determined by the risk it may present to the adjoining plantations or other assets, the nature of the vegetation and also weather conditions. Previous wildfire history is considered, as are State recommendations (from an environmental perspective) regarding fire frequency and intensity, when planning fuel reduction burns.

As Araucaria is sensitive to fire, fuel reduction burning within these plantations is not practiced. The primary Araucaria protection system is a series of retained buffers of rainforest vegetation, generally referred to as 'scrub breaks'. In conjunction with the scrub breaks, a network of fire breaks are established on the native eucalypt forest surrounding the plantations. Fuel reduction burning is carried out on a regular basis in strategic areas of open eucalypt forests to reduce fuel loads and therefore fire hazard. Cattle grazing under permit arrangements also acts to reduce fuel loads.

Fuel reduction burning under Southern Pine plantations during the cooler months of the year is an important practice to minimise wildfire risk.

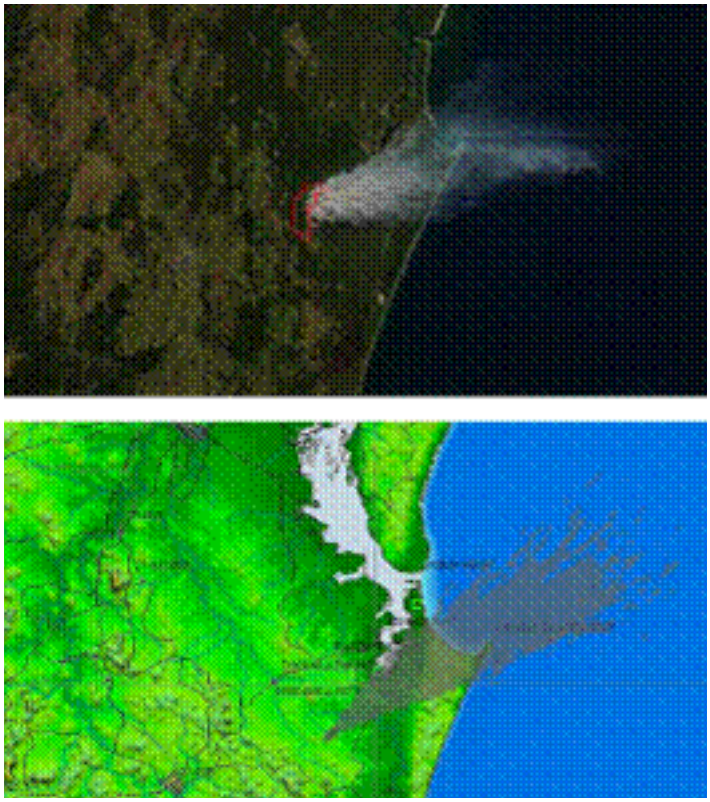
There has been limited fuel reduction burning within the hardwood plantation estate with grazing being the primary means of reducing fuel loads.

HQP staff undertake annual prescribed burning in optimum conditions

Desirable outcome for a prescribed burn in Southern Pine

8.10.3.Smoke management

We recognise that smoke may be a nuisance and impact on community health, crops, visual amenity and traffic safety. However, we also recognise that the key benefit of fuel reduction burning is to reduce the negative and often serious impacts of wildfire and to provide fire fighters and the public-at-large with a safer environment. All fire management practices are planned to mitigate negative impacts of smoke. Persons potentially impacted are consulted or advised, and warning signs are strategically placed. Key issues to be considered when managing smoke are traffic safety, public health, public visibility and neighbouring farm produce. To minimise adverse impacts, considerations, including season, weather forecast, block size, forest type and existing atmospheric pollution, are taken into account.



Smoke modeling (lower image) compares favorably with actual (upper image) and is used to minimise impacts on surrounding communities

8.10.4.Wildfire management

We have a comprehensive fire detection/protection system to prevent or minimise the impact of unplanned fires. Aspects include staff and contractor training, stand-by, fire tower and remote camera surveillance, ground and aerial patrols, fire fighting equipment, maintenance of plant and equipment, fuel reduction burning, communication systems, co-operation with other agencies and fire fighting.

With respect to incident management, response to wildfires is based on the Australasian Inter-agency Incident Management System (AIIMS) including adherence to the following principles:

- Management by objectives
- Span of control
- Functional management.

Staff undertaking a mop up training exercise at a waterpoint, Toolara Forest

Fire room at Beerburrum with remote surveillance cameras

8.11. Managing degraded plantation areas

From time to time, plantation areas can be degraded due to factors including wildfire, windstorms, cyclones, lightning strikes, drought, floods, landslips and pest and disease attack. We maintain and periodically test contingency plans to manage such events. In the event that a plantation is damaged, affected areas are assessed to determine prospects for commercial salvage as well as options for rehabilitation. Factors to be considered include:

- location, size and age of affected areas in relation to adjoining (unaffected) plantations.
- estimated quantity and quality of affected timber and potential markets and associated logistics including timeframes for salvage, harvest and haulage and anticipated prices.

The suite of actions implemented for a particular area of degraded forest is invariably determined on a case by case basis based on an analysis of local factors. Depending on the situation, resource estimates, including net stocked area and future plantation growth potential, may need to be updated based on a post-damage/post-salvage inventory.

Severe Tropical Cyclone Marcia (February 2015) caused extensive damage to Southern Pine plantations near Byfield, Central Queensland.

Areas damaged by wildfires are monitored for pest incursion

Network of linked burrows excavated by the Pale Field Rat (*Rattus tunneyi*) beneath young Araucaria tree

9. RESEARCH

We support a mix of short, medium and long term research projects to realise our business objectives. In broad terms these relate to:

- productivity and quality improvement
- resource characterisation and product diversification
- cost reductions
- improved risk management and environmental performance.

Our Science team oversees the delivery of the research program and coordinates projects involving a range of research providers, external funding sources and internal resources. HQP is a member of a number of research consortiums such as Forests and Wood Products Association, Australian Plantation Forest Industry Herbicide Research Consortium and the National Sirex Committee and maintains strong network ties to a number of university and government research providers.

Some of the key research programs are outlined below.

Genetic Improvement

We maintain a long-term commitment to softwood plantation tree improvement seeking commercial gains in traits such as volume, stem straightness, branching, wind firmness and wood quality.

Stem segments being prepared for assessment at DPI's Salisbury facility as part of Southern Pine Resource Characterisation study

Silviculture

Our research focuses on testing a range of short to long term treatment responses to a variety of treatment, taxa and site combinations, this program continues to shape the basis for current silviculture regimes as described in section 8.

Stewardship

We undertake or support research into a variety of stewardship areas. Examples include population surveys of endangered species such as the Koala (*Phascilarctos cinereus*), the Keys Boronia (*Boronia keysii*) and the Mary River Cod (*Maccullochella mariensis*). We also maintain a series of long term trials investigating the impacts and remediation of soil compaction following machine trafficking. Extensive forest hydrology research over the last 30 years underpins current best practices for soil protection and monitoring of key watercourses continues through collaboration with regional Waterwatch networks.

Trialling UAV technology for a range of potential forest inventory, management and surveillance activities

10. MONITORING AND REVIEW

We monitor and evaluate forest management activities and their outcomes to ensure that forest management performance requirements are met, and that deficiencies are corrected where identified to support continual improvement in forest management.

A summary of the results of our performance and key program achievements for financial year 2024 is provided in **Appendix 6**.

Compliance with operational standards is monitored and verified by regular and formal field checks through the use of a **Quality Audit (QA)** checklists. QAs are based on the performance requirements of the relevant operational standards and exist for a wide range of activities including site preparation, weed control, tree-marking, pruning and sale area management. QAs are updated whenever policies or procedures are reviewed. QAs assess performance against a range of job-specific criteria. Results are entered into a corporate database to enable rapid follow up for any non-conformances and to facilitate reviews of operational performance.

In addition to the QA system, an incident reporting system is in place for 'exception' reporting of incidents, and for dealing with system elements not captured by QAs. Incidents observed (and not captured by a QA) are recorded on the corporate database by field managers or supervisors and the system includes prompts to ensure that any related follow up actions are monitored and 'closed off'. Significant incidents are reported directly to the Executive Leadership Team (ELT) for consideration and if necessary response.

The introduction of an integrated Forest Management System has enabled desktop auditing of operational planning and compliance with company procedures to be undertaken in an efficient and systematic manner.

At a broader level, we have developed 'second party' audit procedures to monitor and review compliance with the procedural and performance requirements of our forest management system. The results of these reviews, and any issue-specific reviews, are considered by the ELT for action.

Our compliance with the relevant forest management standards (RW and FSC) is assessed by qualified, independent third party auditors on a regular basis, with audits sampling a wide range of activities across central office and regional operations. A copy of summary audit reports are available on the company website. Additionally, we provide an annual compliance report to the responsible Minister in respect of our adherence to key PL conditions.

We maintain a register of **Audit non-conformances and corrective actions** on iHQP (our corporate intranet), identifying corrective actions, dates and responsible officers.

We also maintain a register of relevant Federal and State laws and international conventions, which is reviewed at least annually.

We have an active research program that supports continuous improvement in our sustainable forest management system. Summaries are posted to the intranet and cover a wide range of topics. Workshops and field days are also held with staff and relevant stakeholders to support technology transfer.

Components of the overall stewardship system are updated frequently and the various standards are regularly reviewed and updated to reflect best management practices.

***

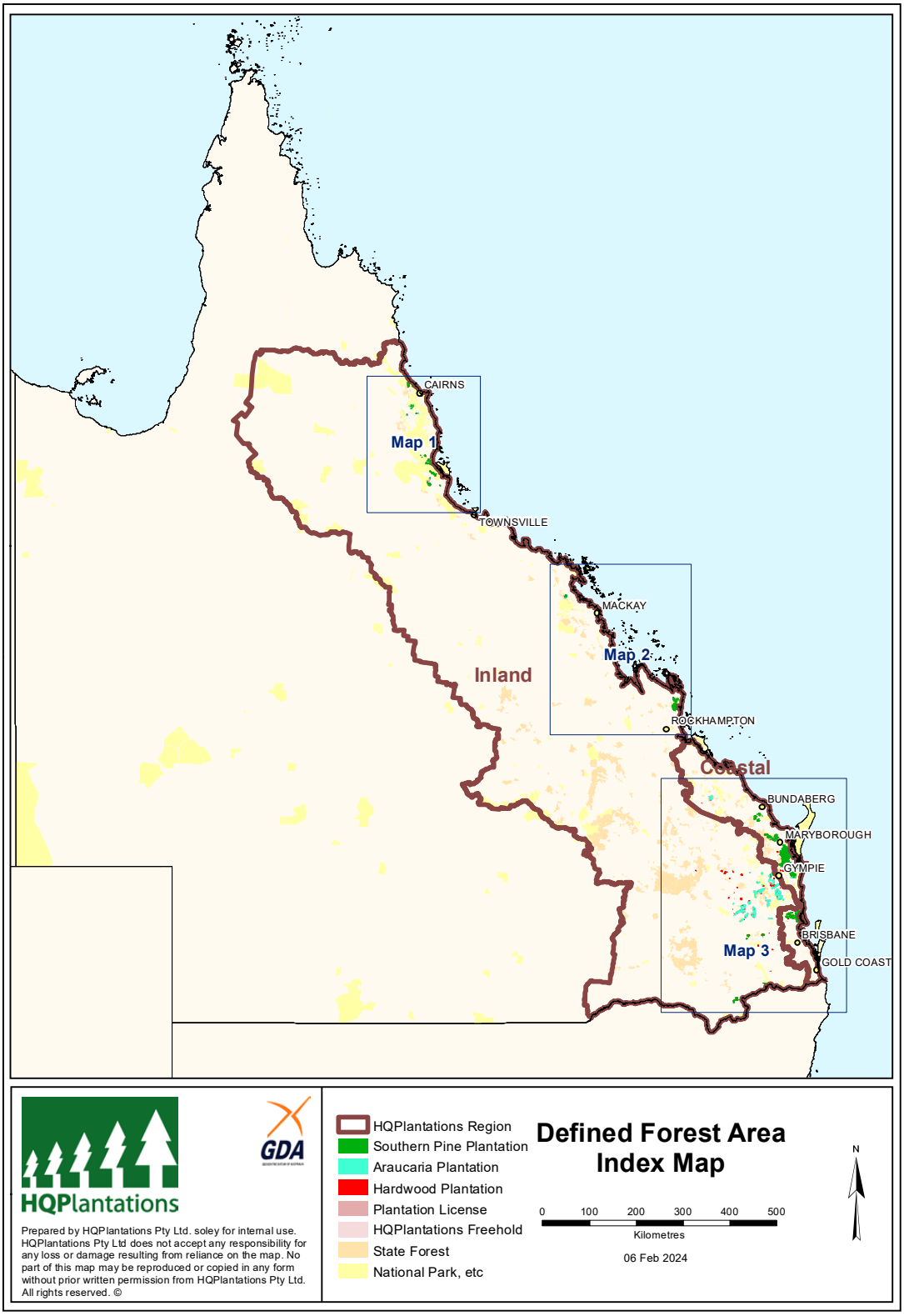
This Plan will be subject to minor annual revisions and a major review, including stakeholder consultation, every five years.

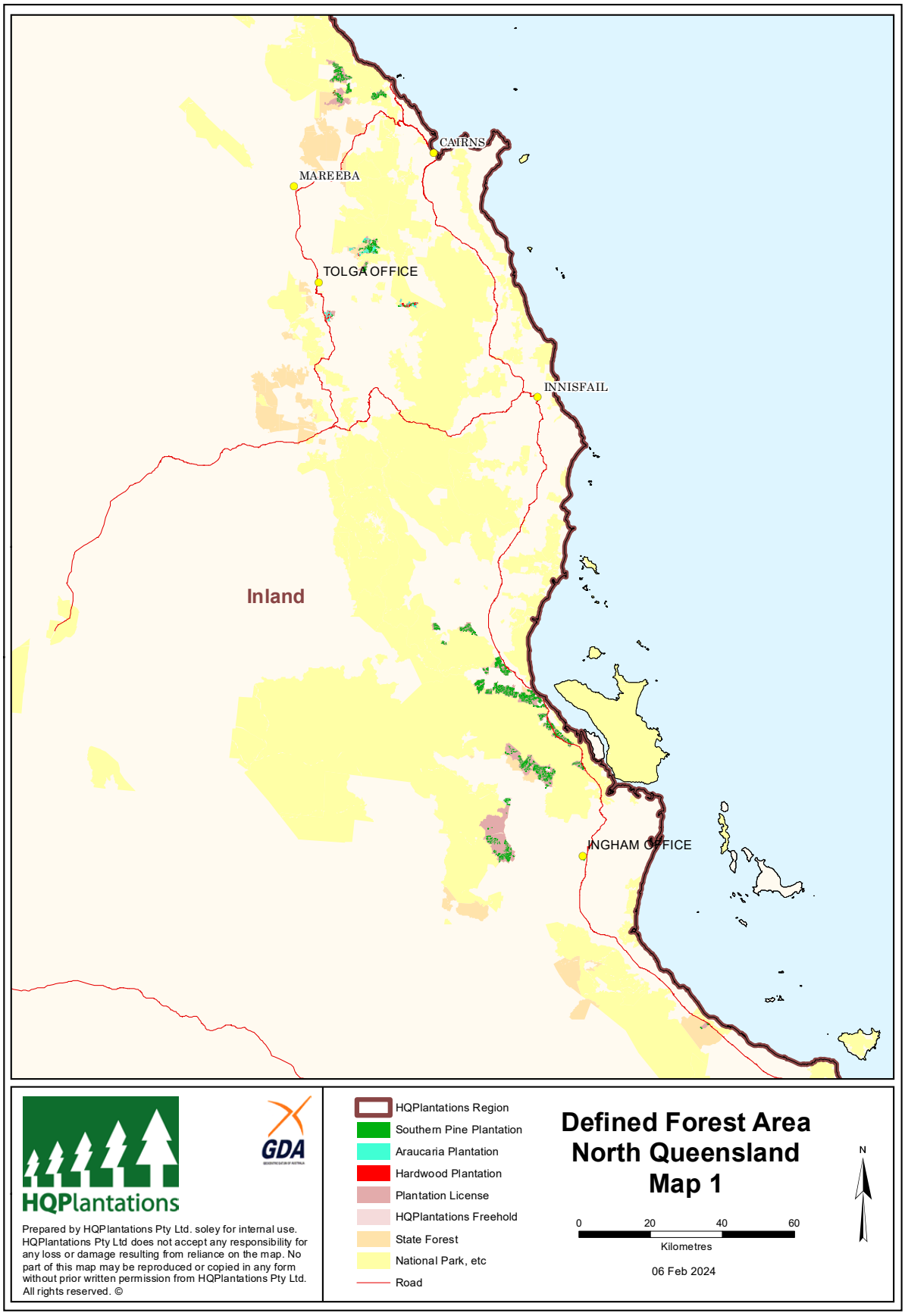
LIST OF ABBREVIATIONS

Abbreviation	Meaning	Abbreviation	Meaning
APVMA	Australian Pesticides and Veterinary Medicines Authority	ILUA	Indigenous Land Use Agreement
BVG	Broad Vegetation Group	LTP	Long Term Plan
CH	Corporate Holdings	MRCCC	Mary River Catchment Co-ordinating Committee
CoC	Chain of Custody	NNTT	National Native Title Tribunal
CO^2	carbon dioxide	NSW	New South Wales, State of Australia
DFA	Defined Forest Area	NTA	Native Title Act 1993
DETSI	(Queensland) Department of Environment, Tourism, Science and Innovation	NTRB	*Native Title Representative Bodies*
DNRME	(Queensland) Department of Natural Resources, Mines and Energy	REDD	Regional Ecosystem Descriptive Database
DPI	(Queensland) Department of Primary Industries	PHS	Plantation Health Specialist
EA	Enterprise Agreement	PL	Plantation Licence
ERA	Environmentally Relevant Activity	QA	Quality Audit
EVNT	Endangered, Vulnerable or Near Threatened (species)	Qld	Queensland, State of Australia
FSC	Forest Stewardship Council	QPWS	Queensland Parks and Wildlife Service
FSP	Forest Stewardship Plan	RE	Regional Ecosystem
FWPA	Forest and Wood Products Australia	RW	Responsible Wood
GIS	Geographical Information System	SEQ	South East Queensland
HCV	High Conservation Values	SF	State Forest
HQP	HQPlantations	UNESCO	United Nations Education Scientific and Cultural Organisation
H&S	Health and Safety	WHA	World Heritage Area
IBRA	Interim Biogeographic Regionalisation of Australia		

APPENDIX 1: MAP OF HQPLANTATIONS REGIONS & DISTRICTS

Note HQP maintains an interactive map at containing our current defined forest area on our website at [Defined forest area | HQPlantations]

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HQPlantations Region
Southern Pine Plantation
Araucaria Plantation
Hardwood Plantation
Plantation License
HQPlantations Freehold
State Forest
National Park, etc
Road
Defined Forest Area
North Queensland
Map 1
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Kilometres
06 Feb 2024
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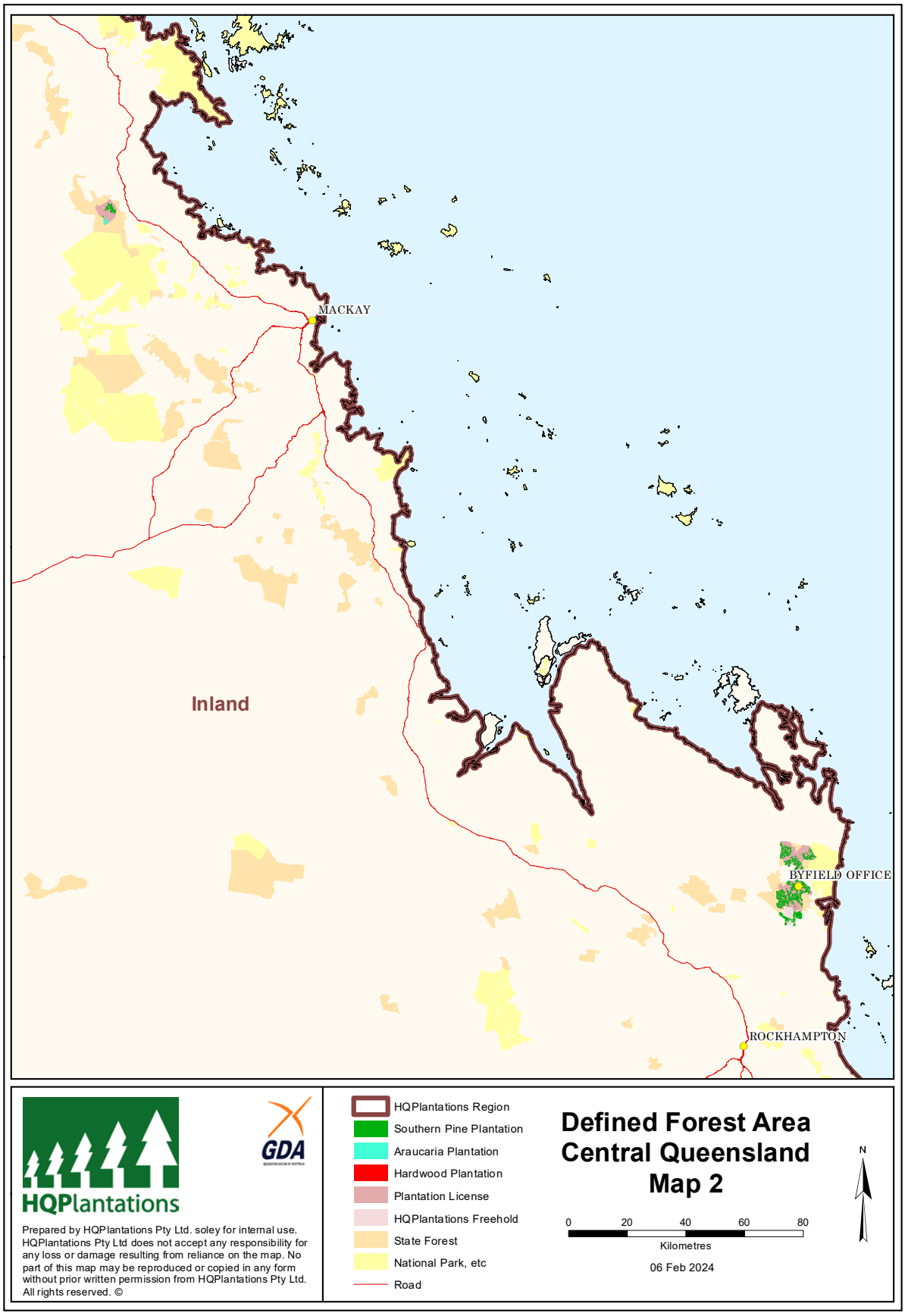
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State Forest
National Park, etc
Road
Defined Forest Area
Central Queensland
Map 2
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Kilometres
06 Feb 2024
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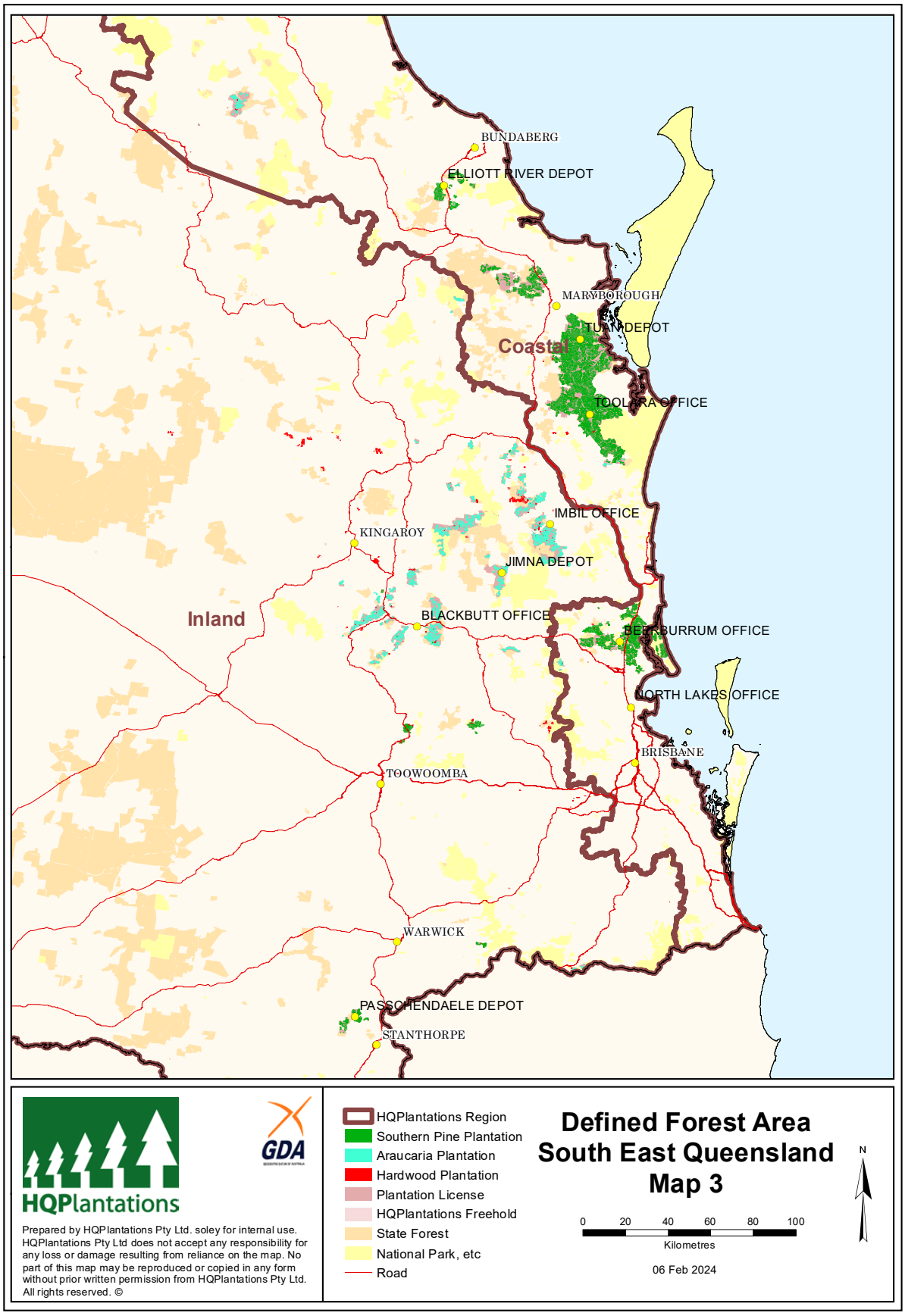
BUNDABERG
ELLIOTT RIVER DEPOT
MARYBOROUGH
TUAN DEPOT
Coastal
TOOLARA OFFICE
IMBIL OFFICE
KINGAROY
JIMNA DEPOT
Inland
BLACKBUTT OFFICE
BEERBURRUM OFFICE
NORTH LAKES OFFICE
BRISBANE
TOOWOOMBA
WARWICK
PASSCHENDAELE DEPOT
STANTHORPE
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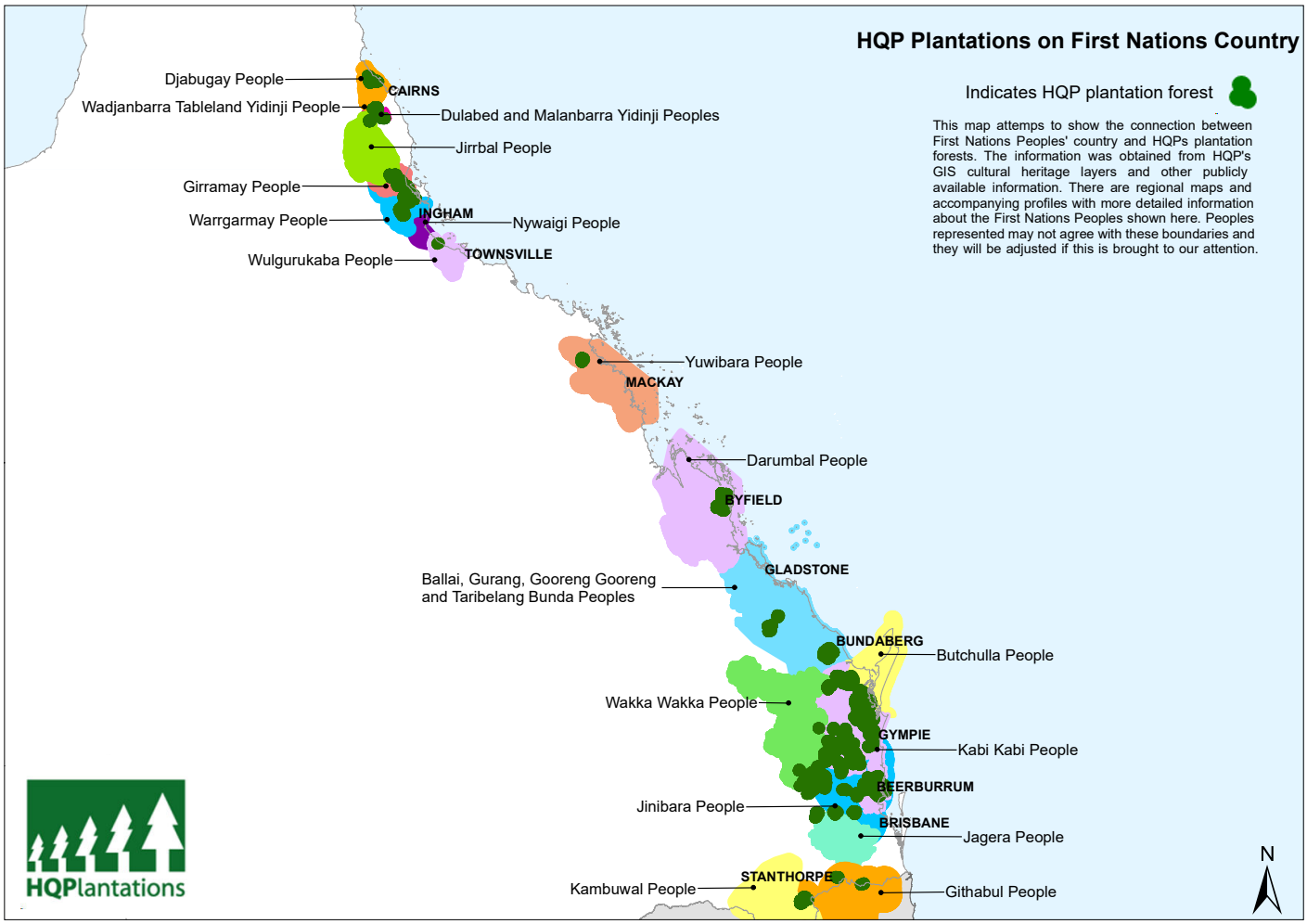
National Park, etc
Road
Defined Forest Area
South East Queensland
Map 3
N
0 20 40 60 80 100
Kilometres
06 Feb 2024

APPENDIX 2: HQPLANTATIONS CULTURAL HERITAGE MAP



APPENDIX 3: POTENTIAL HIGH CONSERVATION VALUE AREAS

In consultation with expert stakeholders, we have assessed the lands we manage for their potential to have High Conservation Values (HCV) as per the Forest Stewardship Council® (FSC®) HCV criteria. The results are summarised in **Table 1**. These listings are updating periodically in response to spatial changes in the as we manage and new information is identified such as newly listed threated vegetation communities that may occur in our area.

Table 1. Summary of High Conservation Value areas with HQPlantations Defined Forest Area

HCV Category		Summary description and location	Area[1]
HCV 1 Species diversity	1.1 Significant concentrations of rare and threatened species or critical habitat	109 Endangered, Vulnerable or Near Threatened species potentially occur within DFA. Areas of significant concentrations include: a. Coondoo-Tinana riparian corridor (and watercourses) b. Mabi Forest in Wongabel SF Areas with a proportionately large population of an individual species include: c. Macadamia populations in the Mary Valley d. Mahogany Glider haitat in native forest buffers within Hinchinbrook Coast forests.	24,285 ha
	1.2 Centres of endemism	No areas identified	0
	1.3 Significant concentrations of rare and threatened species poorly reserved at IBRA region scale	As per 1.1	24,285 ha
	1.4 Significant seasonal concentrations of species	Migratory shorebirds using significant native forest buffer areas adjacent to undeveloped tidal zones along Ramsar wetland areas at Beerburrum and Tuan	1,071
	1.5 High species diversity	a. Coondoo-Tinana riparian corridor (and watercourses) b. Mabi Forest in Wongabel c. Native forest buffers in Como SF surrounding Doggrell Tree FPA d. Native forest buffer within the following Nationally identified Key Biodiversity Areas: e. Conondale Ranges (Jimna and Imbil SF) f. Bunya Mountains and Yarraman (Yarraman SF)	80,100 ha
	1.6 Refugia	a. Remnant paperbark swamps (RE 12.3.5) Beerburrum b. Lowland riparian/gallery rainforest (RE 12.3.1) (Mary Valley and small areas within Tinana Creek riparian corridor c. Serpentinite country between Yabba Creek and Mt Mudlo. Includes a ~100ha portion of native forest buffer in A-Flat (RE 12.11.15) in SF 639. d. The lagoons – part of Tinana Creek corridor e. Yarraman SF provides wildlife refugia in a heavily cleared landscape f. Several bioregional and riparian corridors listed as having State significance in SEQ Biodiversity Planning Assessment run through HQP DFA	63,450

		g. Byfield SF (in addition to surrounding NP and SBTA identified as important wildlife refuge) h. NF buffers within Hinchinbrook Coast Coastal lowlands provide critical linkages and refuge between coast and foothills. i. In the Wet Tropics, the cooler, high elevation areas on the Atherton Tablelands have been identified as important climate refugia. Large areas are already within the protected area estate however Wongabel SF site outside of the main protected estate and given its unique ecosystem is likely also an important wildlife refugia.	
HCV 2 Landscape level ecosystems and mosaics	2.1 Landscape level native forests with minimal human disturbance	No areas identified	0
	2.2 Regionally significant forests at bioregion scale	No areas identified	0
	2.3 Forests that provide regionally significant habitat connectivity between larger forest areas	Possible areas where native forest buffers within the DFA could provide significant connectivity between larger forest areas include: a. Kuranda, Danbulla & Gadgarra SFs in NQ b. Cathu/Macartney SF c. Byfield SF d. Imbil, Jimna, Gallangowan SF	58,839
	2.4 Intact forest landscapes/wilderness areas	No areas identified	0
HCV 3 Ecosystems and habitats	3.1 Ecosystems that are threatened	a. Mabi rainforest RE 7.8.3 in Wongabel SF b. Lowland Rainforests of sub tropics in Mary Valley c. Broad leaf tea-tree (Melaleuca viridiflora) woodlands in high rainfall coastal NQ d. Coastal Swamp Oak (Casuarina glauca) Forest of SEQ at Tuan and Beerburrum (RE 12.1.1 and 12.3.20) e. Forest red gum flats at Kalpowar RE 12.3.3 f. Endangered REs at Beerburrum REs 12.5.3, 12.3.20 g. Endangered REs of Brisbane Valley and South Burnett (various) h. Turpentine open forest at Elliot River SF RE 12.5.11 i. Endangered REs of Como SF j. Red gum and stringybark forests at Passchendaele RE 13.12.9 k. Endangered REs of Hinchinbrook Coast (various) l. Lowland tropical rainforest m. Endangered REs within Coondoo-Tinana riparian corridor (various) n. Coastal Swamp Sclerophyll Forest of NSW and South East Qld	15,219
	3.2 Areas for conservation of important genes/ genetically distinct populations	Macadamia population in the Mary Valley Mary River cod population within Tinana Creek (genetically distinct from main river population)	7,702
	3.3 Old-growth forest	Several small areas mapped throughout HQP DFA during assessments associated with SEQFA. Mapped locations not highly accurate but BAI and risk of adverse impacts from HQP activities is considered very low.	5,098
	3.4 Remnant vegetation in heavily cleared landscapes	No areas identified	0
HCV 4 Critical ecosystem	4.1 Areas that provide protection from flooding	No areas identified	0
	4.2 Areas that provide protection from erosion	No areas identified	0
	4.3 Areas that provide barriers to destructive fires	Large contiguous forests extending to the boundary of communities where there are limited road options for evacuation routes in the event of a wildfire. Communities identified include Jimna, coastal villages to the east of Tuan SF and Byfield.	TBD

	4.4 Areas that provide clean water catchments	Areas directly adjacent to town water reservoirs a. Lake Tinaroo, Atherton Tablelands NQ b. Lenthalls Dam, Wongi c. Waterpark Creek, Byfield Environmental Flows d. Coondoo-Tinana Ck e. Large DFA areas draining directly into Ramsar wetlands (Great Sandy Straits, Moreton Bay)	12,183
HCV 5 Forests fundamental to meeting the basic needs of local communities		No areas identified	0
HCV 6 Cultural values	6.1 Aesthetic values	Glass House Mountains plus much of the surrounding forested and coastal landscape is on the National Heritage List for its geological significance and aesthetic values.	29,957
	6.2 Historic values of global, national or state significance	No areas identified	0
	6.3 Long term research sites	Several gazetted Scientific Areas exist within DFA including: SA 3 at Toolara, SA 4 at Gallangowan, SA 11 at Tuan, SA 16 at Nanango, SA 26 at Toolara, SA 32 at Byfield.	1,280
	6.4 Social values	Collectively the continuation of apiary and stock grazing permits throughout the DFA for cultural and economic values could be considered HCV. Beerburrum forests as a strategic green belt (inter-urban break) between large population centres in SEQ has been identified as a significant social value.	27,743
	6.5 Spiritual and cultural values	HQP treat all identified indigenous sites as HCV and will continue to work with Indigenous groups to protect sites and maintain in confidence information as required.	Mostly point data

[1]Where known, area is based on best available information and in some cases is an estimate only. Many areas of identified HCV overlap and thus it is not appropriate to add all HCV areas together to determine the total area of HCV managed by HQP.

APPENDIX 4: 'CONSERVATION HANDBACK' AREAS

As at June 30, 2024

Conservation Handback Areas (SF Number)	Approx. planted area (ha)	Total Area (ha)
Palen Creek (SF 200/SF 359)	428*	563
Mt Mee (part SF 893)	95	118
Wongabel (part SF 191)	215	565
Total Area	738	1,246

* Harvesting commenced

APPENDIX 5: EXISTING AND POTENTIAL PLANTATION PESTS AND DISEASES

Southern Pine

- Sirex wood wasp (*Sirex noctilio*)
- Cinnamon fungus (*Phytophthora cinnamomi*)
- Diplodia (*Sphaeropsis sapinea*)
- Dothistroma needle blight (*Dothistroma septosporum*)
- Five-spined bark beetle (*Ips grandicollis*)
- Pine aphids (*Essigella californica* and *Eulachnus thunbergii*)
- Giant Pine Scale (*Marchalina Hellenica*)

Static panel trap to detect Sirex wood wasp during flight season

Araucaria

- Araucaria bark weevil (*Aesiotes notabilis*)
- Ambrosia beetle (*Hyleops glabratus*)
- Longicorn beetle (*Strongylurus decoratus*)
- Bark beetle (*Hylurdrectonus piniarius*)
- Pale field rat (*Rattus tunneyi var. culmorum*)
- Red deer (*Cercus elaphus*)
- Scrub turkeys (*Alectura lathami*)
- Yellow-tailed Cockatoo (*Calyptorhynchus fumereus var. fumereus*)
- Sulphur-crested Cockatoo (*Cacatua galerita galerita*)
- Root disease fungi (*Phellinus noxius and Rigidoporus vincta*)

Rat damage to young Araucaria roots

Hardwoods - Diseases

- Boot-Lace fungus (*Armillaria sp.*)
- Quambalaria Shoot Blight (*Quambalaria pitereka*)
- Leaf Crinkle Disease (*Mycosphaerella sp.*)
- Target Spot (*Aulographina eucalypti*)
- Leaf blight (*Cryptosporiopsis eucalypti*)
- Purple Leaf Spot (*Phaeophleospora epicoccoides* [syn. *Kirramyces epicoccoides*])
- Secondary fungus (*Pestalotiopsis sp.*)
- Dothiorella blight (*Botryosphaeria ribis*)
- Myrtle Rust (*Puccinia psidii*)

Quambalaria Shoot Blight on young Spotted Gum (© Geoff Pegg, DPI)

Hardwoods - Pests

- Leaf beetle (*Chrysomelid*)
- Leaf galling wasp (*Chalcidoid*)
- Leaf beetle (*Cryptocephalus iridipennis*)
- Moth caterpillar (*Anthela sp.*)
- Christmas beetle (*Anoplognathus sp.*)
- Leaf beetle (*Paropsis sp., Paropsis atomaria, Paropsis variolosa*)
- Leaf beetle (*Chrysophtharta cloelia*)
- Erinose mite (*Rhombacus sp.*)
- Scale insect (*Cardiaspina maniformis*)
- Lagriid Leaf beetle (*Ecnolagria sp.*)
- Scarab beetle (*Liparetrus sp.*)
- Case moth (*Hyalarcta nigrescens, Hyalarcta huebneri*)
- Cicada (*Psaltoda sp.*)
- Gum tree bug (*Amorbus sp.*)
- Gum tree psyllid (*Ctenarytaina sp.*)
- Scale insect (*Eriococcus coriaceus*)

Leaf-eating beetle and eggs on young eucalypt © Simon Lawson, DPI

APPENDIX 6: 2024 PERFORMANCE MONITORING REPORT

This report provides a summary of key performance monitoring metrics and program highlights for the 2024 financial year.

Business Performance Snapshot:

Metric	FY24 Achievement
Annual sales volume	1.74M m^3
Total area under management	309,434 hectares
Plantation area under management	187,782 hectares
Area planted	7,094 hectares
Area prescribed burnt	17,159 hectares
Plantation carbon stores[1]	52,764,489 t CO2e
Carbon emissions[1] Includes Scope 1 & 2 plus those Scope 3 emissions arising from activites undertaken at HQPs direction (e.g. forest contractor fuel use)	76,527 t CO2e
Forest management certification	FSC and RW sustainable forest management certification maintained
Number of wildfire within or threatening HQP estate	86
Third Party permits issued / in place	481

[1] Figures based 2023 Calendar year

Environmental and cultural value programs (in addition to general operational sustainable management and monitoring practices)

1. **Soil and Water**

- **Monitoring** - We continued participation in catchment or water quality monitoring through Water Watch Eastern Mary Catchment network, the Gympie/Amamoor Catchment network and Healthy Waterways near Beerburrum. We conducted monitoring for offsite chemical (herbicide) impacts on water quality from nine different sites testing for seven active ingredients that are commonly used by HQP. To date all samples have returned results below detectable levels.
- **Enhancement** - Continued weed control works to maintain native or enhance vegetation coverage and minimise creek bank erosion along, Coonoongibber Creek, Widgee Creek and Coondoo Creek.
- **Protection** - Implementation of periodic forest closures following significant rain events to protect both public safety and soil and water values. HQP has greatly improved the community outreach for these closure notices by utilising the existing social media networks of key regional stakeholders in addition to our own.
- **Rehabilitation** - Significant rehabilitation works on firebreak/powerline access tracks severely eroded by unauthorised motorised recreation and wet weather events within Beerburrum district.

2. **Endangered, vulnerable and near-threatened (EVNT) species EVNT**

We supported a range of EVNT species-specific projects. During FY24 we were involved in:

- **Koala Management** – several koala surveys were conducted in southeast Queensland and further awareness training undertaken with harvesting contractors. Several sightings as well as other signs (scats and fresh scratches) were made and recorded.

- **Bird surveys** – in collaboration with volunteers from Cooloola Nature, a program of seasonal bird surveys has been ongoing in Toolara Forest (Tinana Yards) since FY17 to monitor seasonal bird use of this area as the large regeneration project matures. As at February 2024, 133 different species had been identified.

  In addition to these formal surveys another local wildlife group has been regularly undertaking surveys in and around the DFA and had a confirmed sighting of a Regent Honey eater in the area. This species is Critically Endangered and not previously known to occur to occur in this area. HQP are working with the wildlife group to determine any specific management requirements that might benefit this important species.

- **Support for third party EVNT surveys on the DFA** – such as: koala surveys by DPI in HQP Custodial lands across Fraser Coast South and Mary Valley Districts: Macrozamia surveys within potential FWH footprint.

3. Management of native forests including high conservation value forest

A summary of key initiatives progressed in FY24 is provided below:

- **Coondoo -Tinana Ck riparian forest** – approximately 45 ha of previously cleared areas along Tinana Creek was revegetated in FY17. Periodic maintenance (weed control and access management) has continued across parts of this site in FY24. Periodic seasonal bird surveys by local volunteers Cooloola Nature have resulted in 133 bird species being recorded since surveys commenced in October 2017. Bio-condition plot monitoring at this site by Mary River Catchment Co-ordinating Committee (MRCCC) staff is ongoing.
- **Wildling control in HCVs** – ongoing wildling control work was undertaken during FY24 with a focus on treating HCV areas (with high ecological and / or indigenous cultural values).
- **Lowland rainforests of the Mary Valley** – continued releases of Cats Claw Creeper bio-control agents and manual cutting and chemical swabbing of vines at high priority infestation sites.
- **Yurol/Ringtail negotiated handback** – harvesting of all remaining the Southern Pine areas within the handback area were completed during FY23 and the formal handback process completed in FY24. The area will be rehabilitated back to a natural vegetation state. It is a particularly important area for koalas.
- **Other identified HCV areas containing endangered regional ecotypes** – biocondition monitoring is periodically undertaken across a range of HCV and Representative Sample Area (RSA) sites. Permanent plots are measured every 3 - 5 years in mature forest ecosystems and every 1 - 2 years in HCV revegetation project areas to assess an ecosystem against values measured in reference plots of the same ecosystem that are considered to be in their best condition. In FY24, 5 sites were remeasured and all recorded maintained or improved biocondition ratings compared to the previous measure.
- **Bunya dieback research** – HQP have been supporting collaborative research into developing management options and diagnostic tools for Bunya dieback disease currently impacting the Bunya Mountains National Park.
- **Derrier Flats and Bellbird Feature Protection Area** – Weed control and revegetation to improve koala habitat, restore forest ecosystem and manage recreation impacts.
- **Updated mapping** - HCV layers available in GIS were updated to include ecosystems newly listed as endangered the previous year.
- **New Bio Conditiondition Plots** – establishment of 3 new Bio Condition plots in North Queensland for long term monitoring.

4. Engagement with First Nations Peoples and protection of Cultural Heritage

In FY24, we continued the rollout of the First Nations Framework (developed in FY22 with input from First Nations advisors) and completed small group interactive cultural empathy workshops with staff.

We continue to build on the existing relationships we have with First Nations Groups and to identify new groups that may have an interest in the country we manage and initiate new relationships.

HQP continues to engage with First Nations groups and their nominated representatives to undertake cultural heritage surveys and training for forest workers where sites are registered in areas in or near plantations where site-disturbing operations are planned, or in areas where additional ground disturbance activities are planned. Associated training for forest workers by the group undertaking surveys is often incorporated.

5. Community engagement

Community support initiatives in FY24 included:

- Local school and community event sponsorship;
- Letters of support for grant applications, ranger programs, jobseeker programs, and other similar requests;
- Provision of wildfire control and cooperative burns on adjoining lands in HQP's capacity as a Rural Fire Brigade;
- Hosting students, teachers, university researchers, and industry tours throughout the year to provide an overview of what we do;
- Hosting work experience students;
- Attendance at several career pathways events to showcase forestry as a career option for school kids;
- Funding for The Brumby Project, assisting in rehoming feral horses from plantation forests;
- Donation to the Wildlife Hospital, Australia Zoo and provision of animal fodder to Australia Zoo, Eumundi Animal Rehabilitation Hospital and other similar organisations;
- Support provided to various industry and media initiatives including Timber Queensland (including TQ Growth Scholarships), Forestry Australia webinar series, Responsible Wood Community Grants, AFPA and Forest Learning with cash sponsorship, merchandise, imagery, tours, grant promotion and other requests;
- Sponsored Gympie Business Awards, Blackbutt Show, Yarraman Festival, Toogoolawah Show Woodchop;
- Charity Fundraising for Heart Kids, Australia's Biggest Morning Tea, Pink Up, Movember, DVsafephone, and promotion of RU OK Day.

6. Pests and diseases

In addition to regular pest management programs, in FY24:

- Management of feral horses for public road safety remained a strong focus in FY24. HQPs management strategy was revised and endorsed by the board and remains focused on reducing the risk of feral horses on public roads near known populations. Capture and rehoming, along with strategic fencing remains a key component of the management strategy and HQP continues attempts to engage State Government Agencies in supporting this cross tenure issue.
- Participated in the review of Gympie Regional Councils Biosecurity Plan.
- Ongoing participation in syndicates for feral animal (pig and dog) control across many LGAs.
- Engaged specialist pest animal control contractors to undertake pig trapping programs, achieving good success in Kalpowar and Toolara Forests.
- Continued release of biological control agents for invasive vine weeds and associated on-ground works in the Tinana Creek and Lowland Rainforests of the Mary Valley HCV areas. Commenced new releases into localised infestations in Benarkin Forest areas. Biocontrol insects have been sourced Gympie and District Landcare for many years and unfortunately in FY24 they discontinued their insect rearing program.
- Regular reporting on HQP pest control program is undertaken as a requirement of the State Lands Pest
- Management Committee of which HQP is a member. Reports summarize control activities, stakeholder engagement, awareness training and research.

- HQP is an active participant in the Forest Health and Biosecurity sub-committee of the AFPA[2] Growers Chamber Committee. The Committee meets periodically to discuss current and emerging forest biosecurity issues and is working collaboratively with Plant Health Australia (PHA) and States and territories to develop a National Forest Surveillance Program to reduce environmental, social and economic risks to Australia's forests, including native forests and woodlands, plantations and urban forests.
- Within our own plantations, pest and disease surveillance and research was focused on sirex wood wasp, Ips bark beetles, maintaining fungal pathogen control within our nursery and understanding the potential risks and pathways associated with a newly identified pathogens, Cercospora Needle Disease.
- HQP are assisting DPI Queensland in collaborative research on Bunya dieback (*Phytophthora multivora*), currently impacting large stands of ancient bunya pines (*Araucaria bidwillii*) in the Bunya Mountains.
- HQP staff and contractors in SEQ have undertaken training in the identification and potential spread of fire ants

7. Research

During FY24, work was initiated, progressed or completed in relation to the following themes:

- Genetic Improvement – Conducted a major review of Hybrid Pine breeding values. Breeding values (e.g. for growth, wood stiffness and stem straightness) are used to rank the pedigree of nearly 200,000 genotypes which form HQP's Hybrid Pine breeding population. The analysis, conducted in collaboration with researchers from Tree Breeding Australia, is predicted to lead to significant gains in both productivity (mean annual increment, MAI) and core wood stiffness or Modulus of Elasticity (MOE)Establishment of a further series of cloned progeny trials across four sites in SEQ. This included a site at the dry (northern) end of its Fraser Coast estate at Elliott River, so that future selections will be better adapted to a more variable and drying climate.
- Improving nursery plant health quality and early survival - through investigating alternative nursery biosecurity options and evaluating a range of beneficial microbe inoculants.
- Improving plantation silviculture:
    - Analysis of long term treatment response trials comparing various hybrid pine genetics, fertiliser and weed control treatments and their effects on plantation volume production and wood quality.
    - Further trialling and operationalizing the use of mechanical planting and drones.
- Understanding optimal harvest age - As part of a broader FWPA-supported project based on wood quality assessments using the IML resistograph (Resi) tool, HQP conducted a major study on a 26-year-old Hybrid Pine genetics trial aimed at answering the following questions:

    1) How strongly are early age, non-destructive assessments of wood stiffness or Modulus of Elasticity (MOE) related to clearfall age whole-tree MOE?
    2) How heritable are these traits?
    3) Which ages are preferable for early age selection?
- Residue recovery – continued harvest residue trials investigating supply chain logistics, recovery methods, as well as monitoring for any long term effects on site quality.
- Trial and adoption of emerging technologies to measure, monitor and categorise the plantation resource e.g. ground and drone LiDAR point cloud data collection. HQP is a partner in NIFPI/FWPA project NIF197-2223 'Evaluation of remote sensing approaches for plantation health surveillance'. As part of this project, researchers are acquiring and analysing satellite imagery before and after planned prescribed burns over selected target areas to see how accurately burn severity (and recovery over time) can be monitored. The project involved the periodic capture of (high and lower resolution) satellite imagery and indicates that, after processing, low-cost, high return frequency Sentinel-2imagery is likely to be suitable for this purpose.

[2] Australian Forest Products Association

- Evaluating high value product potential-Researchers been assisting HQP as part of a broader strategic evaluation of the potential suitability for the Araucaria resource to produce high value laminated veneer lumber (LVL).

8. Unauthorised Activity Management

Unauthorised activities within the DFA (e.g. rubbish dumping and littering, unlawful and irresponsible use of motor vehicles, fires, drug cultivation and other criminal activities) have the potential to cause environmental damage and represent potential risks to the health and safety of legitimate visitors and forest workers. Actions to address this challenge during FY24 include:

- Public access continues to be managed with an emphasis on engagement, education, compliance, and enforcement.
- Continued work with the Queensland Government's Litter and Illegal Dumping Compliance Operations team(LIDCO) to gather evidence and prosecute cases of illegal dumping.
- Continued operation of mobile camera surveillance cameras to target unauthorised access, vandalism, theft, illegal dumping, arson, and hooning.
- Compliance activities across the PL area included:
- Continued QPS sponsorship for off-road motorbikes to assist with compliance and enforcement;
- Collaborative patrols and compliance operations with QPS and QPWS;
- Information provided to QPS and QFES regarding arson, abandoned cars, unauthorised fires, raves and illegal activities; and
- Public advice of forest closures and access restrictions via website, notices, social media and signage.