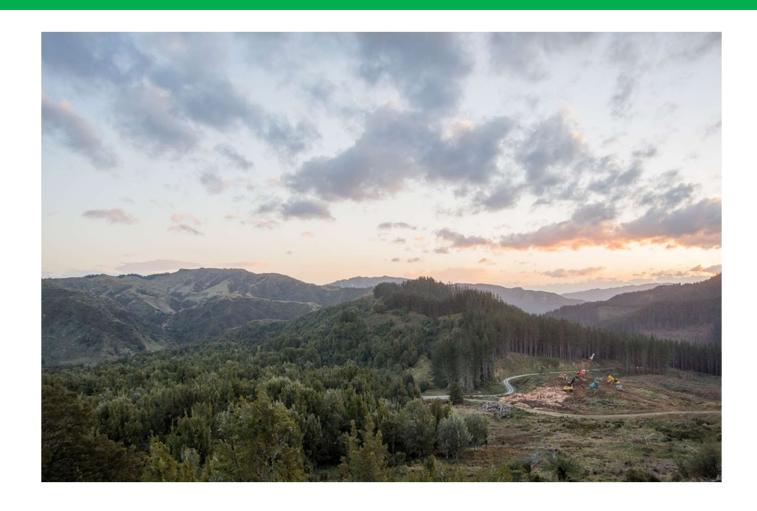




# **FO Standard**

# JNL Forest MANAGEMENT PLAN 2025



Date: 03/11/2025 Doc No: JNL-90-010-FO-DOC-0005 Version: 004 Review by: 31/07/2026 Authorised by: Sean McBride

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## 1 Introduction

This forest management plan outlines the management of Juken New Zealand's Forest estate. which is comprised of two business units, East Coast Forests and Wairarapa Forest.

## 1.1 The Company

Juken New Zealand Limited (JNL) is a New Zealand-registered company with its head office in Auckland, New Zealand.

JNL's parent company is WOOD ONE Co., Ltd., a leading Japanese building materials manufacturer and supplier with its head office in Hiroshima, Japan, that has been in operation for over 70 years.

WOOD ONE Co. Ltd, and its subsidiary companies in New Zealand, Indonesia, and the Philippines, have a strong commitment to environmental management in respect of land, manufacturing, and sales.

JNL was formed in 1990 following the successful acquisition of Crown Forest Licences under the then government's Crown Forest Asset Sale. The ownership status of the forest consists of Crown Forest Leases, freehold land, and assignment of leases, which make up the East Coast (Gisborne) and Wairarapa forest estates of 41,382 hectares. Of this, 80% of the estate is plantation forest, comprising primarily Pinus radiata.

JNL's primary objective is the sustained yield management of the Pinus radiata forest to produce quality wood products to be used in the manufacture of a wide range of products for the house, condominium and construction industry. This objective represents a move away from WOOD ONE Co. Ltd sourcing timber from South-East Asia and the Pacific Northwest.

## 1.2 Wairarapa Forest Estate

The Wairarapa estate is managed out of Masterton and consists of 15,656 hectares. Wairarapa forest supplies logs to the Masterton mill for the manufacture of Laminated Veneer Lumber (LVL), Plywood, and solid clear wood products. Log products that cannot be utilised by the mill are supplied to other local sawmills, and export market via Wellington.

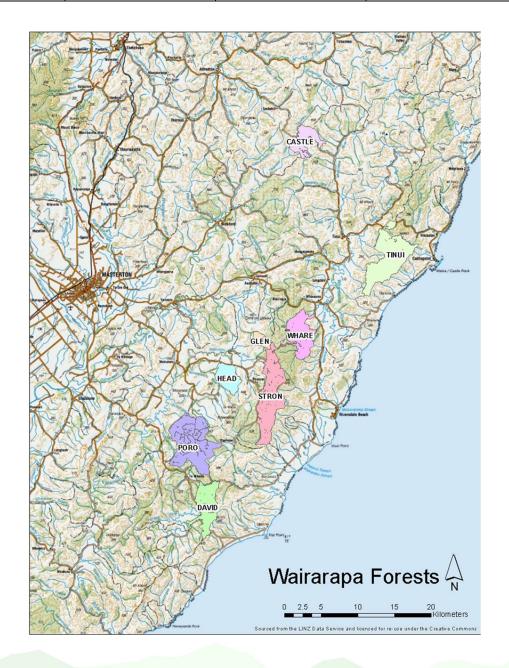
The following table displays the forest block names, size, district and ownership.

Ecological District	Ownership	Forest	PPA (ha)	SNP (ha)	NP (ha)	Total area (ha)
Eastern Wairarapa	Rangitane	Castlehill	719.9	174.4	273.9	993.9
Eastern Wairarapa	CFL	Davidsons	1410.9	109.6	233.1	1644.0
Eastern Wairarapa	Freehold	Glenlean	303.3	70.9	90.1	393.5
Eastern Wairarapa	CFL	Headquarters	907.5	71.9	142.4	1049.9
Eastern Wairarapa	CFL	Poroporo	2627.9	694.3	1100.0	3727.9
Eastern Wairarapa	CFL	Stronvar	2405.7	583.6	621.1	3026.8
Eastern Wairarapa	Rangitane	Tinui	2101.1	831.4	1010.1	3111.2
Eastern Wairarapa	CFL/Rangitane	Whareama	1459.9	39.3	248.7	1708.6
Total	_		11936	2575	3719	15656



JNL Wairarapa has prioritized the domestic market where it supplies its own mill in Masterton and Kiwi Lumber as a key external customer. The following table shows the distribution of wood between the domestic market and export market – note that the increase in export sales for the 2025 year is a result of a significant lathe fire in the Masterton mill which impacted log demand.

Year	Export	Domestic	Total
2022	29%	71%	100%
2023	42%	58%	100%
2024	42%	58%	100%
2025 - YTD	60%	40%	100%





## 1.3 East Coast Forests

East Coast Forests are managed out of Gisborne and consist of 25,726 hectares. JNL's East Coast Forest supplies logs to four domestic mills and to the export market via the Gisborne Port and occasionally Port of Napier.

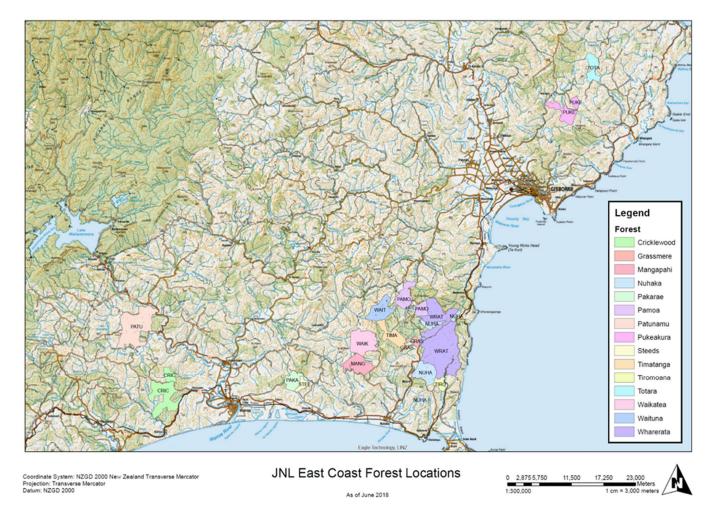
The following table displays the forest block names, size, district and ownership.

District	Ownership	Forest	PPA (ha)	SNP (ha)	NP (ha)	Total Area (ha)
Wairoa	Freehold	Grassmere	248.9	12.3	35.1	284.0
Wairoa	Freehold	Mangapehi	770.4	279.0	493.2	1263.6
Wairoa/ Gisborne	Freehold	Nuhaka	1704.7	19.2	258.4	1963.1
Wairoa	CFL	Pakarae	781.2	4.4	73.2	854.4
Wairoa	CFL	Patunamu	2893.7	46.5	407.9	3301.5
Wairoa	Freehold	Steeds	321.8	0.0	8.7	330.5
Wairoa	Freehold	Tiromoana	356.0	13.8	43.9	399.9
Wairoa	Freehold	Waikatea	1546.0	117.4	297.7	1843.7
Wairoa	Freehold	Cricklewood	2286.0	25.7	307.2	2593.2
Gisborne	Expiring Joint Venture - GDC	Pamoa	1127.8	41.6	434.6	1562.4
Gisborne	Freehold	Pukeakura	1000.8	88.6	212.9	1213.7
Gisborne	Freehold	Totara	679.9	75.7	176.3	856.2
Gisborne/Wairoa	Timatanga	Timatanga	859.4	58.2	232.3	1091.7
Gisborne	IWI Lease	Waituna	1110.1	0.0	195.5	1305.6
Gisborne/Wairoa	IWI Lease	Wharerata	5611.2	276.5	1251.4	6862.6
Total			21,298	1,059	4,428	25,726

JNL ECF has prioritized the domestic market where possible, acknowledging there are limited domestic processing operations within the Gisborne area currently. The following table shows the distribution of wood between domestic the market and export market.

Year	Export	Domestic	Total
2022	85%	15%	100%
2023	89%	11%	100%
2024	87%	12%	100%
2025 - YTD	83%	17%	100%





## 1.4 Forest Stewardship Council Certification

To further enhance that commitment, the Company maintains Forest Stewardship Council® (FSC®) (FSC C013648 & FSC C210401) Forest Management certification, commencing certification process during 2006/07. The Wairarapa Forests were certified in March 2008 and the East Coast Forests in November 2008.

Adoption of FSC Standards, and ongoing improvement within the JNL framework, clearly defines our long-term legal and environmental objectives within our forest operations. The Health and Safety System and Environmental Management System manuals and appended documents define our system of ensuring compliance at all levels and continued improvement of our forest operations. All forest areas both production and non-production will be managed according to clearly defined Management Plans.

#### 1.5 Polices

The following policies are readily available on the JNL website, www.jnl.co.nz/our-forests/

- Forest Environmental Management Policy
- Forest Policy on 1080 Use
- Forest Chemical Management Policy
- Forest Visitor Management Policy
- JNL Forests Third Parties Complaints

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## 1.6 External Agreements

As a member of the New Zealand Forest Owners Association (<a href="https://www.nzfoa.org.nz/">https://www.nzfoa.org.nz/</a>), JNL is bound by the requirements of the <a href="https://www.nzfoa.org.nz/">New Zealand Forest Accord (1991)</a>) and the <a href="https://www.nzfoa.org.nz/">Principles for Commercial Plantation Forest Management in New Zealand (1995)</a>.

The Forest Accord protects remaining indigenous forest remnants within the plantation forest that meet minimum size and quality criteria from clearance and conversion to plantation forest. The Forest Accord predated RMA vegetation clearance rules, to protect indigenous vegetation remnants, well before they were protected by regional and district plan processes.

All New Zealand Forest Accord vegetation in the JNL managed estate is identified in the company Geographic Information System (GIS) as a Significant Non-Plantation Area and is protected.

The Principles for Commercial Plantation Forest Management in New Zealand are complementary to the New Zealand Forest Accord and cover a range of broader principles to promote environmental excellence in plantation forest management, and the protection, preservation and sustainable management of native forests

## 2 Forest Operations

## 2.1 Plantation Management Strategy

#### 2.1.1 Guiding Principle

JNL plantations will be sustainably managed for profit, utilizing the best practices of current forest industries, and recognizing the high-value end-use requirements for all merchantable trees grown.

#### 2.1.2 Goals

To improve access to domestic and international markets; maintain commercial and environmental performance to the highest standards available in plantation management; maintain an environmental management system aligned to international standards; achieve a commercial rate of return on investments that at least meet JNL's cost of capital; and operate as a good corporate citizen in the communities we operate in.

#### 2.1.3 Performance targets

JNL plantation management will endeavour to be a leader in the New Zealand Industry whilst:

- Meeting Industry Best Practice operational standards;
- Complying with and exceeding employee health, safety, and welfare laws and regulations;
- Obtaining and maintaining internationally recognised environmental certification from Forest Stewardship Council;
- Demonstrating social responsibility by employing locally domiciled people and remunerating all employees at or above the living wage.
- Continuously improving the growth and profit potential of all plantations, including the research and development of alternative species and provenances, currently using Pinus radiata replanting stock CP or other quality factors that have proven traits as its core business;
- Managing all Pinus radiata stands to maximise log quality through the implementation of specific regime standards for each district, bearing in mind the particular circumstances at each site. In general, tending of Pinus radiata requires pruning to the desired height, followed by thinning the stands in one or two operations to achieve the targeted final stems per hectare.
- Participating in internal and external programmes that minimise the risk of fire, disease, and pests in, or near any plantations or other land owned or managed by JNL.
- Training and educating all employees to the standards necessary to meet all of JNL's goals and objectives.



#### 2.2 Silviculture

#### 2.2.1 Overview

Silviculture encompasses all practices related to the establishment, growth, composition, health, and quality of a forest, aimed at meeting management objectives.

JNL employs progressive, proven silviculture practices that meet objectives to maximize value in its resource while minimizing risks to the growing crop and underlying land. JNL is dedicated to sustainably establishing radiata pine using clear wood regimes, except where environmental conditions necessitate alternative regimes or plantation species provide economic benefits, or where there is a need to diversify risk.

#### 2.2.2 Herbicide Application

Herbicides are utilised primarily for weed control prior to planting and in the first one to two years following planting to reduce competition and prevent crop mortality. Once the crop trees outgrow the weed and understory species, typically between one and three years of age, the trees are 'free to grow,' and no further herbicide application is required.

Herbicide application is also used:

- to control roadside vegetation, thereby maintaining the roads in good condition and reducing fire risk.
- Where required to control noxious weeds, in accordance with the requirements of Regional Pest Management Strategies prepared by Regional Councils.
- To control wildling pines.

The main herbicides used in JNL's operations are:

- Glyphosate and Metsulfuron are used for pre-plant weed control
- Terbuthylazine and Hexazinone are used for post-planting release of trees.
- Clopyralid and Trichloram Brushkiller(picloram & triclopyr) are used for the releasing of age 2-3 trees

All herbicide spraying is carried out in accordance with New Zealand Standard NZS 8409:2021, The Management of Agrichemicals, and applicable Regional and District Plan rules.

#### 2.2.3 Forest Tending

The following tables outline the forest tending timelines for each region.

#### **East Coast Forests**

Year	Operation	Description
-1	Pre-Plant Weed Spray	Aerial spray prior to planting with a mix of metsulfuron, glyphosate, organosilicone and occasionally Valzine.
0	Over sowing	This may occur in areas that at risk of soil erosion
0	Planting Plant to 1,000 sph from June through to August.	
1	Survivals	Survey of seedling survival and growth.
2 - 3	Post-Plant Weed Spray	In areas where Pampas grass is present in high numbers. Use a mix of hexazinone and terbuthylazine mix
5 - 6	First Prune	Prune height to 3m. Target of 320 sph.
7 - 8	Second Prune	Prune height to 5m
9 - 10	Third Prune	Prune height to 6.5m



9 - 10	1 <sup>st</sup> Thin to waste	Target is 700 sph.
11 - 12	2 <sup>nd</sup> Thin to waste	Target is 300 -350 sph.
20 - 30	Pre-Harvest Inventory	Use LiDAR imagery to analyse tree crop yield.
28-32	Harvest	

## Wairarapa

Year	Operation	Description		
-1	Land Preparation	After ground-based logging operations have occurred. This is line raked / windrow slash raked and includes drainage where required.		
-1	Pre-Plant Weed Spray	Aerial spray prior to planting with a mix of metsulfuron, glyphosate and organosilicone.		
0	Oversowing	This is done in areas where weeds are an issue (e.g., gorse,) and in erosion prone areas. This is done in the late autumn tearly winter.		
0	Planting	Plant to 1,000 sph from June through to August.		
0	Post-Plant Weed Spray	Spot spraying with hexazinone and terbuthylazine mix of the oversown areas where grass is competing with the seedlings or aerial release where there is high broom or gorse growth.		
1	Survivals	Survey of seedling survival and growth.		
2 - 3	Post-Plant Weed Spray	In areas where broom and gorse is present in high numbers. Use a mixture of Brushkiller, Clopyralid and Organosilicone.		
4	Foliage Sampling	Sampling in late summer to measure nutrients available to the tree crop.		
4	Fertilise	Boron fertilising in deficient areas in early spring.		
4	Age 4 Inventory	Using LiDAR and drone imagery to collect tree heights and stockings. Also used to re-map stands.		
5 - 6	First Prune	Prune height to 3m. Target of 320 sph.		
7 - 8	Second Prune	Prune height to 5m		
9 - 10	Third Prune	Prune height to 6.5m		
9 - 10	1 <sup>st</sup> Thin to waste	Target is 700 sph.		
11 - 12	2 <sup>nd</sup> Thin to waste	Target is 300 -350 sph.		
20 - 30	Pre-Harvest Inventory	Use LiDAR imagery to analyse tree crop yield.		
30-32	Harvest			



## 2.3 Harvesting

JNL is committed to maximizing value recovery from its harvesting operations, minimizing waste and excessive energy use, while being cost-competitive with other producers and valuing the need to comply with its Environmental, Health, and Safety responsibilities. JNL is also committed to a programme of continuous improvement, introducing new and innovative technologies to complement traditional harvesting techniques and improve worker health and safety, as well as environmental and economic outcomes.

Cable logging operations in Gisborne and Wairarapa forests represent, on average, 90% of all log extraction. The decision to use ground-based log extraction, generally by skidder, tractor, or excavator, is based on the topography and perceived environmental impact.

Sustainable harvest levels are ensured by using a combination of inventory data, growth and yield modelling, soil fertility/forest health monitoring, and long-term forest management planning. This approach ensures that harvest rates do not exceed inter-rotational growth, maintaining forest productivity and long-term yield sustainability for subsequent forest rotations. Previously JNL managed the combined Forest Management Units (FMU) to ensure overall sustainable harvest, we are now reviewing activities by separate FMU



Photo: Harvesting Operations Timatanga Forest

#### 2.4 Forest Protection

JNL undertakes a number of activities to reduce risk to the forest estate. In the event that risk measures are unsuccessful the company has developed a business continuity plan that will be implemented during a large-scale event.

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#### 2.4.1 Fire Protection

Management of rural fires falls under the jurisdiction of Fire and Emergency New Zealand (FENZ).

JNL has an agreement in place with FENZ that enables cooperation in managing forest fires.

JNL has a comprehensive Fire and Emergency plan for each region, which, in association with FENZ, helps mitigate the fire threat. JNL maintains firefighting equipment in both Wairarapa and Gisborne estates.

#### 2.4.2 Pest Control

Animal pest control is carried out both to protect the production forest and the indigenous biodiversity values within them. JNL uses a combination of professional pest control companies and recreational hunt to control pest numbers. Animal pests that can require control in our plantation forest include possums, wild goats, deer, pigs, rats, mustelids, rabbits, and hares.

Plant pest control is carried out in line with regional council guidelines. In some cases, JNL works with regional or district councils to carry out control of plant pests.

More detail is outlined in the *JNL Pest Management Plan - JNL-90-010-FO-DOC-012*, which can be made available upon request.



Photo: Possum feeding at a bait station in Totara Forest HCV



#### 2.4.3 Forest Health

JNL contracts an external company, SPS Biota, to complete annual forest health surveys.

The surveys are completed using a combination of drive-thru visuals, aerial assessments and plots. The plotting and drive-through specifications are done in accordance with the methodology used in the Carter Model and subsequent review.

At each stop, foliage and wood debris are inspected, and any significant damage, insects, or fungi

present are recorded. This data is stored in the Forest Health Database (FHDB) maintained by the Bioeconomy Science Institute (previously Scion). Coordinates for the drive-through survey, as well as all inspection points, are captured using a GPS(NZTM2000, WGS84).

Where possible JNL will work with research organisations on projects that are align with the company's management goals. Currently, JNL is working with Scion on a project related to Red Needle Cast.

## 3 Legal Requirements

Forest operations in New Zealand are subject to various regulatory requirements. The following are key regulatory requirements that JNL is committed to complying with:

- Resource Management Act 1991 (RMA)
- National Environmental Standards for Commercial Forestry (NES-CF)
- Health and Safety at Work Act 2015 and Safe Practice for Forestry and Harvesting Operation ACOP Aug. 2025
- Climate Change Response Act 2002 (ETS)
- Heritage New Zealand Pouhere Taonga Act 2014
- Treaty of Waitangi obligations

JNL maintains a legal compliance register that includes all relevant legislation - Forest Legal Compliance Register - JNL-90-010-FO-DOC-0007-v001.

# 4 Health and Safety

JNL is committed to maintaining and improving health and safety outcomes for all its employees, contractor workforce, visitors, and others who may be affected by our activities. JNL maintains a rigorous and very active programme to monitor, provide guidance, and, where necessary, maintain discipline to ensure that health, safety, and welfare are fundamental business objectives. To meet these objectives, JNL has a comprehensive Health and Safety Management System which is documented in the JNL Forestry Health and Safety Management manual (*Doc No: JNL-90-010-HS-STD-0009*). The JNL policy on Health and Safety is available on request.

Appropriate resources are allocated to ensure that all legislation, including health and safety legislative requirements, is complied with. JNL will ensure that the appropriate health, safety, and well-being management systems are established, maintained, and regularly reviewed for continuous improvement.

# 5 Environmental Management

#### 5.1 Introduction

JNL works under the guiding principles formulated by its owner and is dedicated to being an environmentally responsible plantation owner and processor of solid wood and engineered wood products.

To meet these objectives, JNL has implemented an Environmental Management System. Underpinning the system is a commitment to sustainable forest management, protection of cultural and historic sites, and areas of significant indigenous vegetation and wildlife habitat, including wildlife corridors were practical. This commitment encompasses an overarching philosophy of continued improvement in environmental management. Part of the



continuous improvement programme is to ensure JNL forests meet the standards described in the Forest Stewardship Council Principles and Criteria. The Forest Environmental Policy can be found on the JNL webpage <a href="https://www.jnl.co.nz/our-forests/">www.jnl.co.nz/our-forests/</a>.

## 5.2 Operations Planning

Before undertaking harvesting or earthworks operations, it is determined whether the operation is a permitted activity under the NES-CF or whether a resource consent is required under the Resource Management Act. Where a consent is required, an application which includes an assessment of the actual and potential effects of the proposed activity is submitted to the local regulatory authority. The application also provides details of measures to be used to prevent or minimise adverse effects.

All operations undertaken on the JNL estate must have a work prescription in place before work commences. Any site-specific risks are documented in the work prescription. Contractors are required to comply with the work prescription as well as with any applicable resource consent conditions.

## 5.3 Protection of Threatened Species

JNL is committed to managing our forests to maintain a diversity of indigenous flora and fauna species. Of Particular importance are rare, threatened, and endangered species living within the estate.

JNL, along with relevant stakeholders, has undertaken a review to identify all rare, threatened, and endangered species that could potentially be present in the forests. This work has been summarized in a document titled Forest Field Guide to Rare, Threatened, and Endangered Species Within the JNL Estate.



Photo: Falcon/Karearea - Wharerata Forest ECF



## 5.4 Non-Plantation Forestry Management Strategy

Non-plantation (NP) Forest Areas are those areas where indigenous vegetation is the predominant species and can be further classified as either Significant Non-Plantation (SNP) Forest Areas or Other Non-Plantation Forest Areas. Non-Plantation Forest Areas are considered as Significant Areas until they have been assessed otherwise.

Significant Non-Plantation Forest Areas are determined as those areas meeting the following criteria:

- Areas under Protective Covenant and listed in the Crown Forest Licence
- Department of Conservation Recommended Areas for Protection (RAP)
- Areas listed in Regional or District Council Plans as areas of significance (PMA's)
- Areas which have been assessed by JNL or any other party as meeting the requirements of the Forest Accord.
- Riparian margins alongside Significant Waterways

Significant Non-Plantation Forest Areas are to be managed to minimize damage during forest operations, with the long-term goal of establishing a representative network of reserve areas to assist in the protection of biodiversity. All Non-Plantation Forest areas are identified in the company GIS mapping system and managed as permanent reserve.



Photo: Native Forest Riparian Area – Tinui Forest

## 5.5 High Conservation Value Forests

Under the FSC Principles and Criteria, certified forestry companies are required to identify reserves within the forest estate that meet the FSC definition of High Conservation Value (HCV) and develop management plans, as needed, to maintain or enhance the high conservation value attributes that define such forests.

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JNL has developed an HCV process for assessing the JNL estate, HCV Assessment Process - JNL- 90-010-FO-PRC-0011, available on request.

The HCV assessment process will be reviewed as more information comes to light and understanding of the HCV criteria in the NZ context develops. The HCV process is reviewed and updated as new information is received or approximately every five years in consultation with relevant stakeholders.

A complete reassessment of the JNL estate was completed by external consultants in 2025 resulting in a number of new HCVs being identified. Consultation with stakeholders is currently being undertaken for these new sites along with the development of management plans.

#### **Totara Forest HCV**

JNL has designated 87ha within Totara Forest as high value conservation forest in 2020. Two Protected Management Areas lie within the Totara Production Forest area, Makahakaha Stream Bush, PMA ref -WR44, 57 ha and Totara Station Bush, PMA ref- WR41, 30 ha. Several additional high-value non-production indigenous forest remnants are also located within the forest. This mosaic of mature forest remnants provides an extremely valuable and rare seed source for the upper Waimata Catchment as it contains a range of representative mature podocarp forest species, including matai, kahikatea, pukatea, miro, and beech, not found elsewhere within this catchment. The Gisborne community is currently investing considerable effort in protecting and restoring the Waimata Catchment. The protection of these forest assets and the biodiversity within them, i.e., the long-tailed bat, contributes significantly to the community effort already in place and supported by the Gisborne District Council and the Department of Conservation.

JNL has undertaken Pest Management at this site since 2015, followed by the HCVF designation in 2020, an updated pest management plan was developed, accompanied by an increase in pest control efforts.

## 5.6 Historic Site Management Process

Several forests managed by JNL contain historic sites and wahi tapu, resulting from early human occupation. Unrecorded sites are also occasionally discovered during the harvesting or planting process.

Historic sites are vulnerable to damage when undertaking earthworks and harvesting. JNL has an Archaeological - Historic Site Discovery Process, which specifies the procedures that must be followed when working around archaeological sites, either known or discovered during operations. The document is available upon request.

All known sites are recorded in GIS and taken into account in the planning of operations. No operations are undertaken which could potentially damage or modify an archaeological site without the necessary Authority from Heritage New Zealand Pouhere Taonga and consultation with key stakeholders. Once the authority is obtained, it becomes part of the Work Prescription for the operation, ensuring that the conditions of the Authority are complied with.

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Photo: Wood Pigeon/Kereru feeding on Kowhai

## 5.7 Environmental Incident Management

All incidents are required to be reported, and significant incidents are investigated to ensure staff and contractors learn from the experience, and management processes are reviewed and revised to avoid repeat incidents.

# 6 Community

#### 6.1 Stakeholder Engagement

Stakeholder consultation and engagement are essential components of responsible forest management. JNL is committed to engaging proactively and constructively with stakeholders in the planning and management of our operations. JNL has a procedure in place, Forestry Stakeholder Consultation, to guide consultation, including culturally appropriate stakeholder engagement, as well as processes to be followed by JNL staff when planning and undertaking forest operations.

## 6.2 Employment

Forest management requires educated and well-trained employees who understand not just their technical roles but also the impact of those roles on the community and the environment. JNL requires all workers within our forests are employed to a minimum of NZ regulation and those conditions as guided by the International Labour Organisation, as per *JNL Labour Standards Policy JNL-90-010-HR-POL-0009*. JNL provides a significant contribution to the local economy (see Table 1.)



	Wairarapa District	East Coast District
Employment (excluding direct JNL employees in Forests and Mills)	106	185
Wages, Salary, and Contract payments contribute to the Community	\$20 million	\$40 million
Annual Sponsorship, donations, and Public Road maintenance	\$10,000. Also non-product forest services are provided.	\$435,000

Table.1 Contribution to the community

An example of the contribution JNL makes is seen directly in the town of Wairoa, Hawke's Bay. The population of Wairoa is approximately 4,720 and JNL indirectly employs approximately 61 workers, active within our FMU, who live in the Wairoa district, in addition JNL are the key supplier of logs to East Coast Lumber in Wairoa who employ another 30 local staff.

#### 6.3 Recreation

JNL forests are used for a wide range of recreational activities, including deer hunting, pig hunting, walking, fishing, bike riding, possum trapping, and gathering firewood.

Access to JNL forests is, in most locations, managed through a system of access permits. The challenge for JNL is to provide reasonable recreational access to the forest while also ensuring the protection of environmental and ecological values, as well as the safety of both recreational users and JNL staff and contractors.

Lease forests access is typically managed by the landowner.

## 6.4 Dispute Resolution

JNL intends to proactively manage relationships with stakeholders to prevent situations that may escalate into complaints or disputes. However, despite the best intentions, such situations will inevitably arise from time to time. It is JNL's goal to manage all complaints and disputes ethically and proactively, aiming to achieve timely and mutually acceptable solutions wherever possible, and to avoid creating ill will with JNL stakeholders, risking harm to the business of JNL, or compromising the values or reputations of our clients.

JNL has a Forests Third Parties Complaints procedure that details the steps to be followed in the event of a dispute. A copy of *JNL Third Parties Complaints – JNL-90-010-FO-POL-004* can be found on the website and is also available upon request.

#### 6.5 Environmental Impact Assessment

JNL recognises that its business is important to the communities in which we operate and that our operations and business decisions can impact both positively and negatively on the environment and the community.

JNL uses an Environmental Impact Assessment (EIA) process to identify potential environmental and social impacts of planned operations and business decisions, to evaluate alternative approaches and to design and incorporate appropriate prevention, mitigation, management and monitoring measures.



JNL has an Environmental Impact Assessment procedure which provides guidance to workers on when and how to conduct an EIA to proactively identify and manage the impacts of JNL operations on the environment and communities in which we operate.

General Managers Forestry are responsible for ensuring assessments are completed as appropriate for operations and management decisions within their region.

The Chief Forestry Officer is responsible for ensuring assessments are completed in relation to national level management decisions.

## 6.6 Community Catchment Groups

Community Catchment groups have gained momentum in New Zealand over the last few years. Multiple groups have started up in the last years in both Wairarapa and Tairawhiti. JNL is involved in several catchment groups that overlap with each of its forest estates. JNL staff participate in catchment group events and sit on the committee for multiple groups.



Photo: Confluence of the Mangaone and Mangapehi Streams



## 7 Monitoring

#### 7.1 Overview

Monitoring operations, the environment, and aspects of its business performance leads to an improvement of JNL's overall performance as a manager of sustainable forest resources, a significant contributor to sound environmental management, and a good corporate citizen and employer.

The objective of monitoring is to ensure that JNL's environmental performance is regularly measured and that key performance indicators are detailed in Forests' annual reports. The purpose of environmental monitoring is to ensure compliance with legal requirements, company standards, and environmental objectives and targets, and to identify potential continual improvements, initiating correction or corrective action.

## 7.2 Operational Activities

JNL regularly conducts internal audits to confirm operations have been carried out in accordance with work prescriptions and regulatory requirements, and to identify any corrections required.

The frequency of operational monitoring varies between sites and operations. It shall be maintained at a level appropriate to the scale and intensity of the operation, as well as its associated level of environmental aspects that require management. For high-risk operations, this involves visits to the site at least once per week by a JNL manager or nominated person.

In addition, JNL staff undertake annual Audits with contractors operating in our estate to ensure they are complying with our fire preparedness standards.

Regional Councils also conduct regular compliance monitoring of operations undertaken under resource consents or the National Environmental Standards for Commercial Forestry permitted activity rules.

## 7.3 Water Monitoring

Annual monitoring of in-stream values in permanently flowing freshwater streams prior to, during, and after harvesting operations is conducted a minimum of once per year at fixed sampling points. Photos of point samples are also taken to visually monitor water quality over time, and any aquatic life (present or absent) is noted at the point sample. Recently JNL has implemented eDNA sampling into its water monitoring programme. Results from eDNA sampling sites are publicly available on the Wilderlab webpage.

## 7.4 Rare, Threatened, and Endangered species

The presence of rare, threatened, and endangered flora and fauna species is reported year-round by staff, contractors, contractor employees, and forest users, and collated into the Integrum database for annual reporting of sightings. The information is then used in the planning of forest operations, with sightings being recorded in GIS, to ensure planned operations take the RTE observation into account.

#### 7.5 Pest Management

The efficacy of feral animal control operations is monitored through the numbers of pests culled by pest contractors. In addition, static observations, both at night and during the day, which are conducted on an ad hoc basis. Plant pests are identified throughout the year through reports from forest users, neighbours, regional council, and a control program is implemented when required.

#### 7.6 Forest Growth

Forest Yield reconciliations (predicted volumes versus actual recovery) are conducted annually using harvest volumes achieved and predicted yield. The trends are analysed to assess the growth models being used to calculate the yields. Permanent Sample Plots (PSPs) are also established to analyse tree growth over time.



## 7.7 Health and Safety

Health and Safety monitoring is coordinated by the JNL health and safety manager and the forestry safety advisor.

General Managers must ensure processes that ensure health and safety performance, and systems are monitored, audited, and reviewed to identify trends, measure progress against goals, assess conformance, and drive continual improvement must be in place.

Performance monitoring and review includes:

- · Conducting regular stakeholder meetings
- Incident reporting and investigations
- Monitoring of potential occupational risks
- Performance of managers and contractors against Key Performance Indicators (KPI's)
- Risk focused workplace inspections and audits (refer Forestry H&S Management Manual JNL-90-010-HS-STD-0007)
- Setting and completing annual health and safety objectives.

#### 7.8 HCV

JNL in consultation with stakeholders has developed management plans for identified high conservation areas. Each management plan includes a monitoring program to assess changes in the overall condition of the HCV. Monitoring results will be made available to stakeholders. Management plans will be reviewed on an ongoing basis to ensure it is fit for purpose.

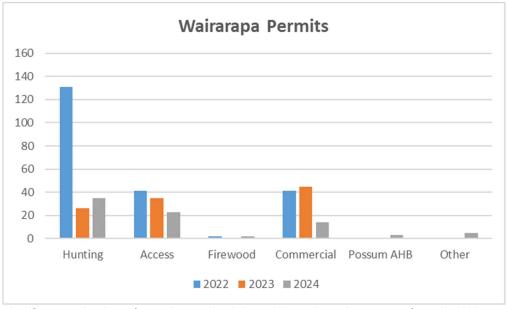


# 8 Public Summary of Monitoring Results

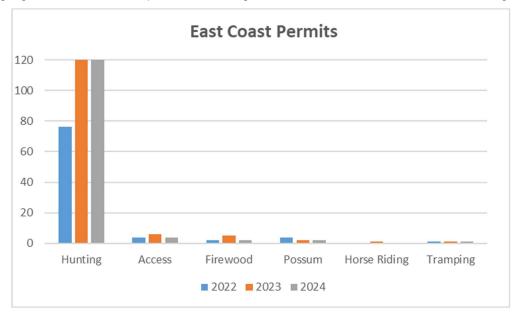
As part of our certification commitments, we aim to provide summaries of our monitoring activities. While we strive for transparency, it is not always possible to share detailed summaries of everything we monitor. Nevertheless, we believe the monitoring information presented in this document offers valuable insight into our performance and its potential impact on stakeholders.

### 8.1 Forest Access Permits

Access to JNL forests is allowed through a permit system. The following graphs are summaries of the number of permits issued for 2022 through to the end of 2024.



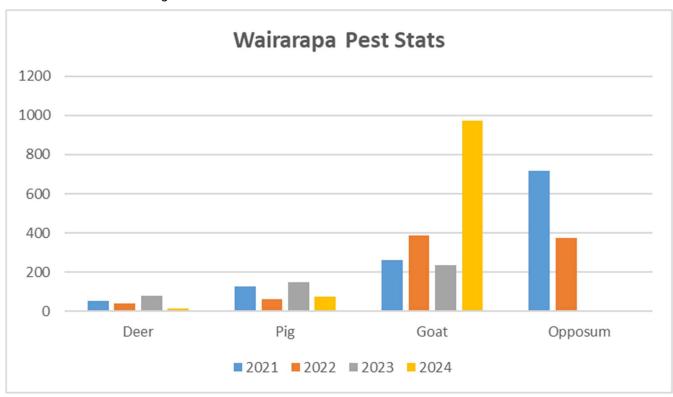
Noting significant reduction of permits as the rights to issue have been transferred to iwi organisations.



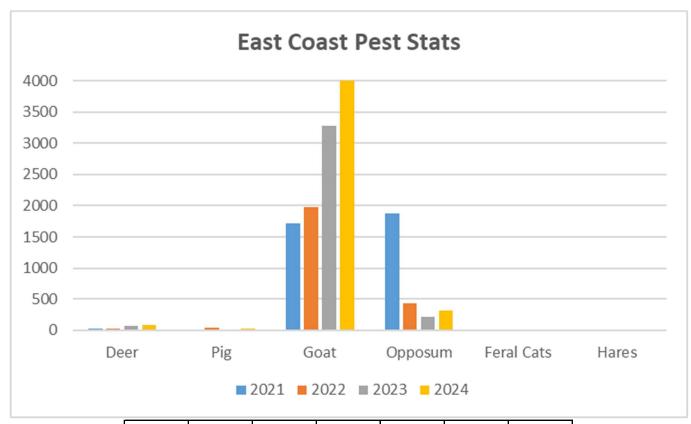


## 8.2 Pest Control Numbers

JNL has a substantial pest control program throughout its estate. The following graphs provide an overview of pest controlled from 2021 through to 2024.



	Deer	Pig	Goat	Opposum
2021	52	128	262	719
2022	39	63	389	374
2023	80	149	237	0
2024	16	75	972	0

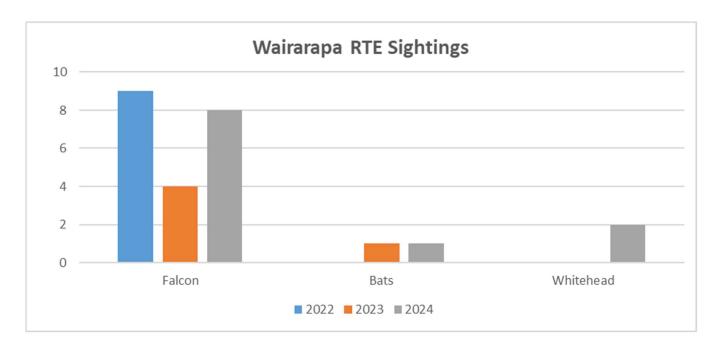


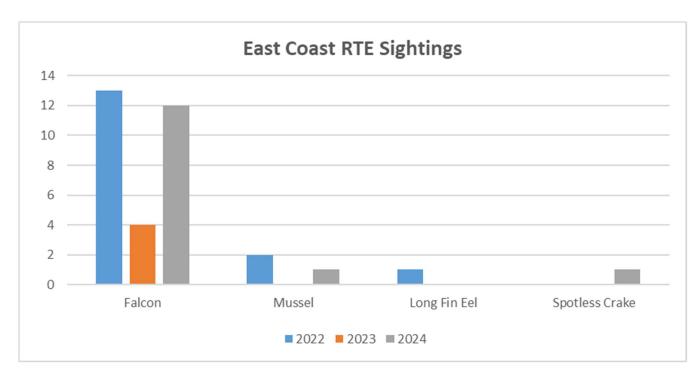
	Deer	Pig	Goat	Opposum	<b>Feral Cats</b>	Hares
2021	21	14	1721	1879	11	3
2022	26	42	1978	434	5	3
2023	64	16	3282	219	2	5
2024	82	25	4367	312	6	4



# 8.3 Rare, Threatened and Endangered Species Observations

JNL encourages staff and contractors to report RTE species. The following graphs show the number of species sightings report from 2022 through 2024. Of note in 2024 was the sighting of a Spotless Crake.

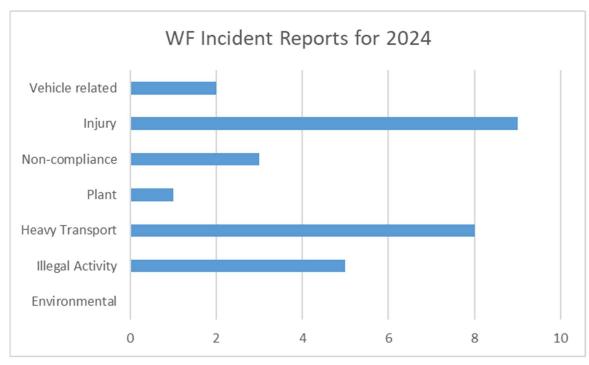


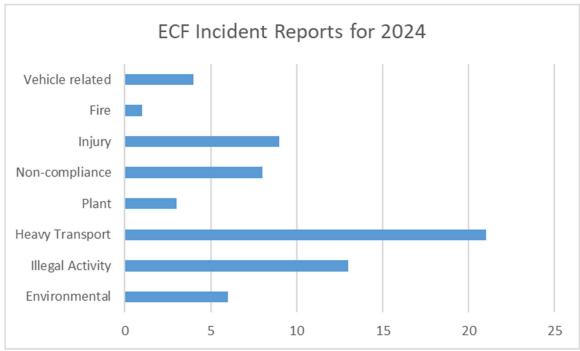




# 8.4 Health, Safety and Environmental Incident Reports

JNL's health and safety manager provides monthly reports on safety performance of the company. The following graphs provide an overview of incidents reported by forest activity.







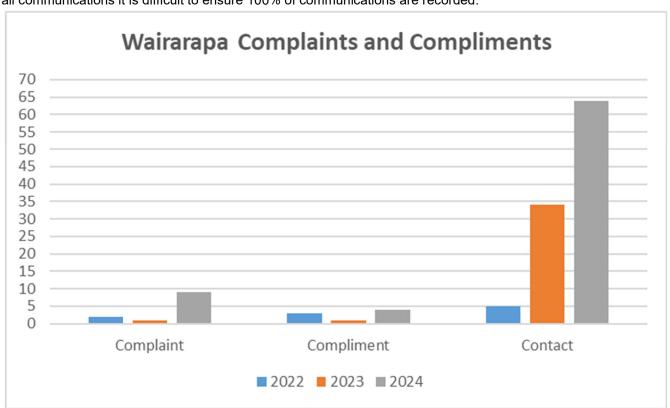
## 8.5 Silviculture Quality

Each planting quality is assessed sampling a portion of the planted using plots. The following table provides a summary of the planting quality program for the 2024/25 planting season.

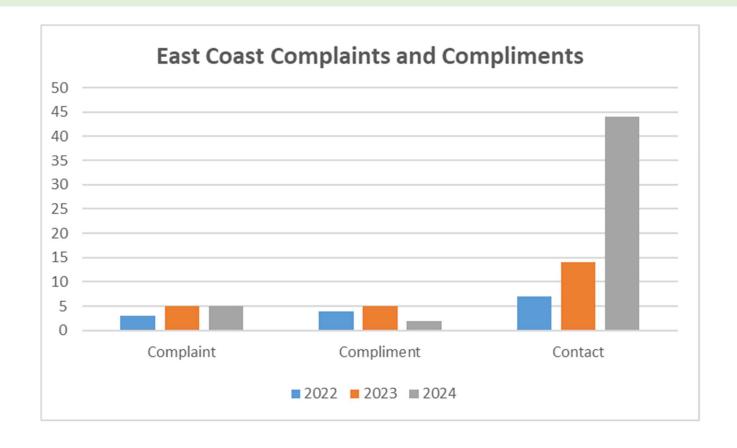
Wairarapa Forests		East Coast Forests	
Total area planted	393ha	Total area planted	560 ha
Total quality plots	220	Total quality plots	206
Total rework plots	24	Total rework plots	
Total area reworked	48 ha	Total area reworked	158
Total % reworked	12.2%	Total % reworked	28.2%

#### 8.6 Stakeholder Communications

JNL has a system in place for recording incoming and outcoming communications with both interested and affected stakeholders. Currently these communications are stored in our Integrum database. The following graphs show the number of stakeholder communications recorded for the last three years. Although staff do their best to record all communications it is difficult to ensure 100% of communications are recorded.



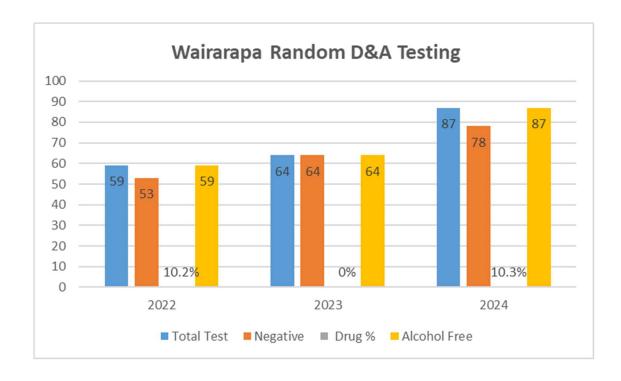


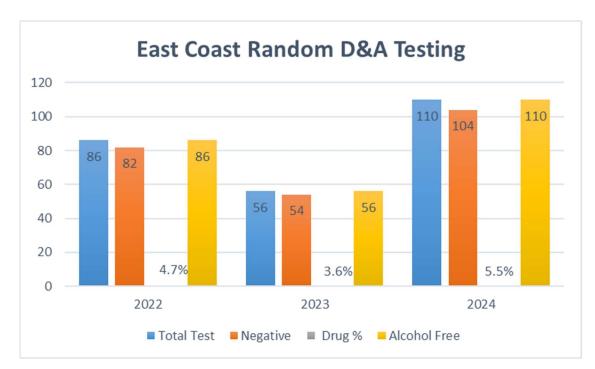




## 8.7 Drug and Alcohol Testing

JNL uses an external company to complete a random drug and alcohol testing program for staff and contractors. The following graphs show the results of the testing program for three years up to 2024.

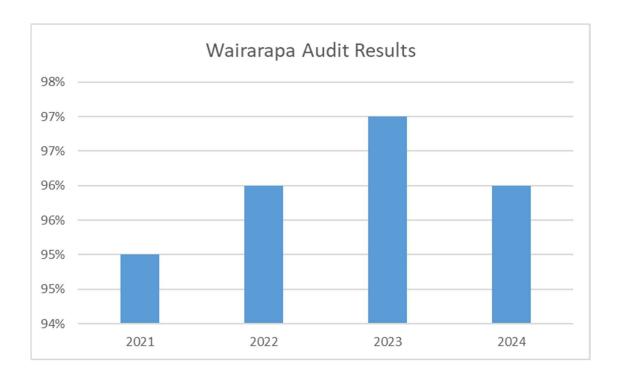


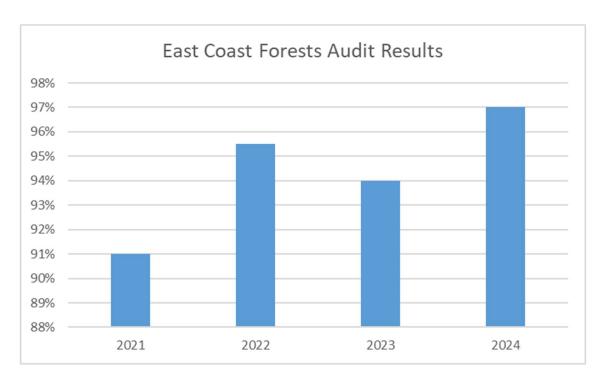




# 8.8 HSE System Audits

JNL conducts regular health, safety and environmental system audits on its contractors working in the forest. The following graph outlines results over the last four years.

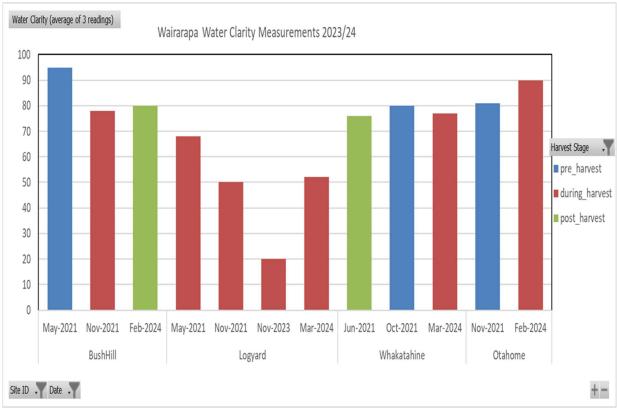


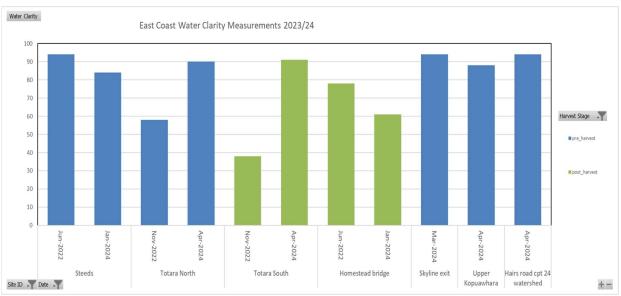




# 8.9 Water Quality Monitoring

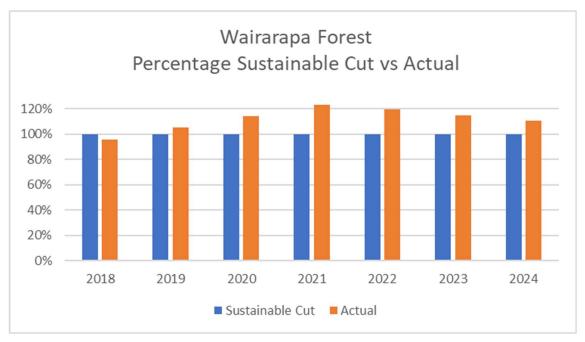
The following graphs display clarity measurements taken during water quality sampling before during and after harvesting.



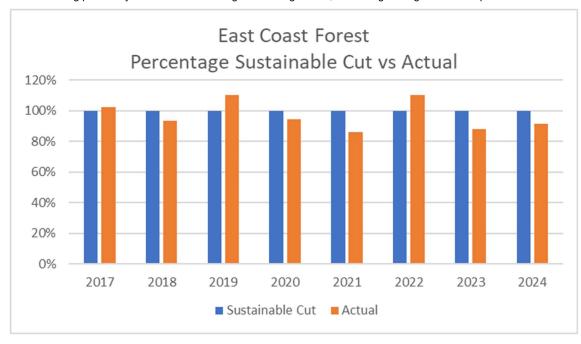




## 8.10 Sustainable Harvest



Noting previously the estate was managed as a single FMU, now being managed as two separate FMU.





	ELEMENT	MONITORING	Included
	ELLMENT	MONTONING	(Y/N)
a.	The results of regeneration	- Planting quality control assessments	Υ
	activities (Criterion* 10.1)	- Annual survival survey	N
b.	The use of ecologically well adapted species for regeneration (Criterion* 10.2)	- Annual survival survey	N
		- Stocked area statement	N
		- Sustained yield - Annual harvest cut (& 10 year plan forecast)	
		- Age 4 crop survey	
		- Mid-rotation inventory	
C.	Invasiveness or other adverse impacts associated with any alien species* within and outside the Management Unit* (Criterion* 10.3);	- Wilding survey	N
d.	The use of genetically modified organisms* to confirm that they are not being used. (Criterion* 10.4)	- Nursery genetics record	N
e.	The results of silvicultural activities (Criterion* 10.5);	- Operational quality control assessments	Y
f.	Adverse impacts to environmental values* from fertilizers* (Criterion* 10.6);	- Foliar nutrient sampling age 3.5	N
g.	List of fertilizers* and application rates kept ongoing	- Stand records for fertiliser	N
h.	Any damage from fertilizer* use documented including remedy as occurs	- Environmental incident reports	Y
i.	Adverse impacts from the use of pesticides* (Criterion* 10.7)	- Post operation inspections	N
		- Stand record database	
		- Area treated by pesticides	
		- Forest health surveys	
		- Age 4 surveys	
j.	Pesticides* used are checked against FSC prohibited list and NZ exempt list on introduction of new pesticide	- Hazardous substance register	N
k.	Checks are made to ensure environmental damage is avoided after spray releases	- Environmental incident reports	Y
		- Post operation monitoring	N
l.	Adverse impacts from the use of	- Register of biocontrol agents	N
	biological control agents* (Criterion* 10.8);	- Environmental incident reports	
m.	Any biological control agents* are documented by outside agency on release	- Where applicable	N

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n.	The impacts from natural hazards* (Criterion* 10.9);	- Emergency incident register (Integrum)	N
0.	The impacts of infrastructural* development, transport activities and silviculture* to rare and threatened species*, habitats*, ecosystems*, landscape values* water and soils (Criterion* 10.10);	<ul><li>Operations monitoring report</li><li>Waterway monitoring program</li><li>RTE reporting</li><li>HCVF visual assessments</li><li>Environmental incident reports</li></ul>	Y
p.	Soil stabilisation including roading is monitored ongoing or until stability achieved.		N
q.	The impacts of harvesting and extraction of timber and non-timber forest* products*, environmental values*, merchantable wood waste and other products and services (Criterion* 10.11);	Operations monitoring report     Waterway monitoring program     Environmental incident reports	N
r.	Environmentally appropriate disposal of waste materials* (Criterion* 10.12)	Recycling records (agrichemical containers, steel culverts)     Environmental incident reports	N

soc	SOCIAL IMPACTS OF MANAGEMENT ACTIVITIES			
	ELEMENT	MONITORING	Included (Y/N)	
a.	Evidence of illegal or unauthorized activities (Criterion*	- HS&E Enforcement Notices	N	
		- Critical Rule Breaches – Integrum		
	1.4);	- Trespass notices		
		- Environmental incident reports		
b.	Compliance with applicable laws*,	- HS&E Enforcement Notices	N	
	local laws*, ratified* international	- Six-monthly Legal updates		
	conventions and obligatory codes of practice* (Criterion* 1.5);	- Environmental incident reports		
		- Resource consent register		
C.	Resolution of disputes* and grievances (Criterion* 1.6,	- Register of Complaints and Disputes - Integrum	N	
	Criterion* 2.6, Criterion* 4.6);	integrani		
d.	Programs and activities regarding workers'* rights (Criterion* 2.1);	- Register of workers disputes	N	
e.	Gender equality*, sexual harassment and gender discrimination (Criterion* 2.2);	- Register of harassment complaints and	N	
		personal grievances		
		- Staff performance reviews		
f.	Programmes and activities regarding occupational health and safety (Criterion* 2.3);	- H&S reports – Integrum	N	
		- Tree felling policy		
		- Annual heath assessments		
g.	Payment of wages (Criterion* 2.4);	- JNL salary payment	N	
		- Contracts paid		

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		- Korn Ferry salary review	
h.	Worker* training (Criterion* 2.5)	- Training register	N
	,	- Quarterly audits of contracts	
health of wo pesticides* (	Where pesticides* are used, the	- Annual Health Checks	N
	health of workers* exposed to pesticides* (Criterion* 2.5 and Criterion* 10.7)	- Contract health check requirements	
j.	The identification of Indigenous	- Stakeholder Register	# of permits
	Peoples* and local communities* and their legal* and customary rights* (Criterion* 3.1 and Criterion* 4.1);	- Beneficial lwi and community hunting/fishing permits- lwi Special access permits	only
k.	Full implementation of the terms	- Iwi Special access permits	N
	in binding agreements* (Criterion* 3.2 and Criterion* 4.2);	- lwi relationship survey	
I.	Indigenous Peoples* and	- Register of Complaints and Disputes	# of
	community relations (Criterion* 3.2, Criterion 3.3 and Criterion* 4.2);	- Beneficial lwi and community hunting/fishing registrations	complaints only
		- Iwi Special access permits	
m.	Protection* of sites of special	- Register of archaeological/cultural sites	N
	cultural, ecological, economic, religious or spiritual significance	- Environmental incident reports	
to Indig	to Indigenous Peoples* and local communities* (Criterion* 3.5 and Criterion* 4.7)	- Area lost to fire	
n.	The use of traditional knowledge* and intellectual property* (Criterion* 3.6 and Criterion* 4.8);	- Stakeholder Register	N
0.	Local* economic and social development (Criterion* 4.2, Criterion* 4.3, Criterion* 4.4, Criterion* 4.5);	- Number of local businesses used	N
		- Business operation expenditure	N
		- Number of workers employed	Υ
	,	- Register of Complaints and Disputes	N
		- Number of scholarships/internships	N
		- Number of customers / FSC CoC customers	N
		- Domestic vs export Volume	N
		- Social Impact Assessment	N
p.	The production of diversified	- Number of log grades cut	
	benefits and/or products (Criterion* 5.1);	- Beneficial lwi and community visitor permit registrations	
		- Iwi Special access permits	
q.	Actual compared to projected annual harvests of timber and nontimber forest* products* (Criterion* 5.2);	- Predicted versus actual by log grade reconciliations	N
		- Annual harvest cut (& 10-year plan forecast)	
r.	The use of local* processing,	- Number of customers / FSC CoC customers	N
	local* services and local* value	- Percentage volume domestic vs export	Υ

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	added manufacturing (Criterion* 5.4);	- Number of log grades cut - Number of local businesses used	N N
	·	- Business operation expenditure	N
S.	Long-term* economic viability*	- Monitoring of Budget	
	(Criterion* 5.5);	- Annual harvest cut (& long-term plan forecast)	
		- Age survey	
		- Mid-rotation inventory	
		- Annual accounts	
t.	High Conservation Values* 5 and 6 identified in Criterion* 9.1.	- HCVF visual assessments	N

CHANGES IN ENVIRONMENTAL CONDITIONS			
ELEMENT	MONITORING	REFERENCE	
Environmental values* and ecosystem	- Environmental Services Calculation	N	
functions* including carbon sequestration and storage (Criterion* 6.1);	a. Carbon		
	b. Recreation		
	c. Possums/pests		
	d. HCV area		
	e. Rare species		
	- Waterway monitoring program		
	- RTE sighting database		
	- Environmental incident reports		
Rare and threatened species* (Criterion* 6.4); Rare and Threatened species* populations and habitat* monitored	- RTE sighting database	RTE sightings	
Representative Sample Areas*	- Area statement of productive, conservation	N	
(Criterion* 6.5); Large – representative areas health and restoration* programs	area network.		
are monitored	- HCVF visual assessments		
Naturally occurring native species* and	- HCVF visual assessments	RTE sightings	
biological diversity* (Criterion* 6.6);	- Photo points		
Maintenance is monitored	- RTE sighting database		
Water bodies* and water quality (Criterion* 6.7);	- Waterway monitoring program	Clarity results	
Landscape values* (Criterion* 6.8);	- Permanent sample plots	No	
Large - Trials monitored	- Net stocked area by ageclass		
	- Clearfell Area by Size Distribution		
	- Forest health surveys		
	- Yield reconciliation		
	- Waterway monitoring program		
Conversion of natural forest* to plantations* (Criterion* 6.9);	- Area statement of productive, conservation area network	Yes	

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The status of plantations* established after 1994 (Criterion* 6.10);	- Area statement of productive, conservation area network	Yes
High Conservation Values* 1 to 4 identified in Criterion* 9.1.	- HCVF visual assessments	No

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