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PARENGARENGA INCORPORATION

FORESTRY ANNUAL MONITORING REPORT

YEAR ENDING 30 JUNE 2025

'B' Block looking north towards Parengarenga Harbour

Public Monitoring Report 2024/2025
Version 1.1 August 2025

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INTRODUCTION

Parengarenga Incorporation (PINC) is an indigenous Māori organisation based in and with strong historical links to the small Māori community of Te Kao, with Māori shareholders (most of who are from that community), a Māori Committee of Management (also from that community) and within excess of 90% of employees who are Māori and who live in that community.

PINC owns its own whenua, owns the tress on that whenua and cuts its own trees with its own machinery.

PINC achieved Forest Stewardship Council ® (FSC ®) certification on 28 March 2024 for meeting all the requirements of a well-managed plantation forest as provided for in the FSC Forest Stewardship Standard for New Zealand (FSC-STD-NZL-02-2023 V2-0) FSC-STD-50-001 V2-1.

PINC's certificate code is SCS-FM/coc-009980.

FSC is an independent not for profit organisation. Certification demonstrates that the management of the certificate holder's forest is based on being environmentally responsible, its operational practices are based on sustainability, its employment practices are fair and reasonable and meet or exceed all legal requirements and the certificate holder engages with the local community and local Iwi in a socially responsible manner.

FOREST DESCRIPTION

General

PINC's forestry business operates on 10,018 hectares of land, of which a little over 7,000 hectares are planted to productive pine. Block A, which coveres 6,048 hectares runs parallel to Te Oneroa-a-Tōhē. Block B covers 3,770 hectares and runs parallel to Great Exhibition Bay.

Afforestation commenced lin the ate 1960's to early 1970's. Most of the productive forest is on it's second rotation, with some areas in Block A being third rotation.

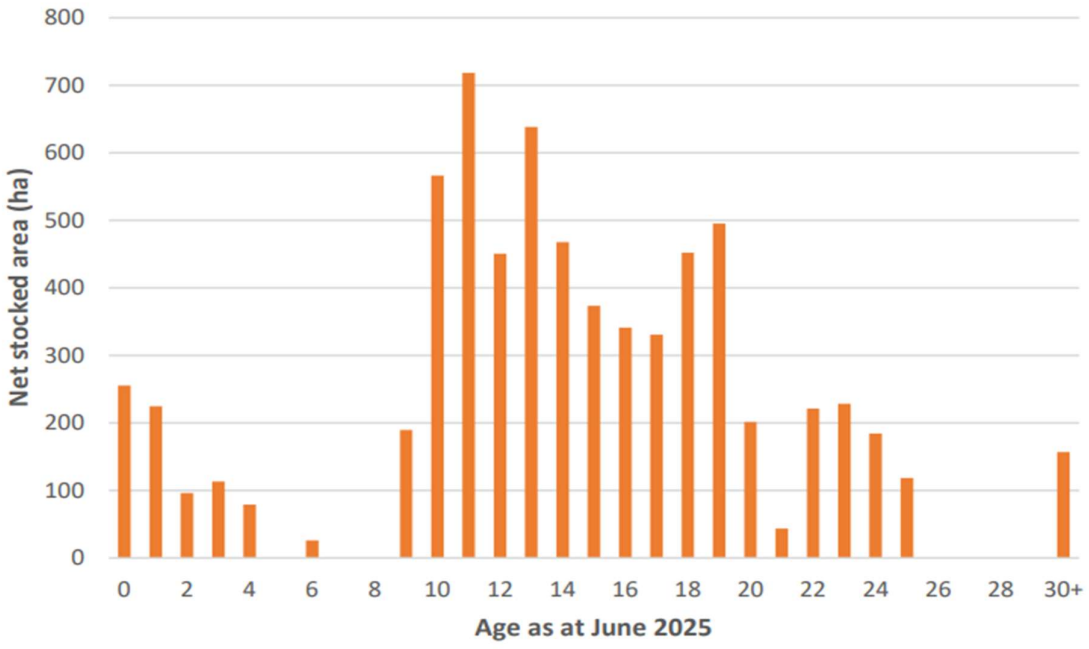
Land is mainly undulating sand dunes on a coastal sand plain.

Block A soils on the West Coast are predominantly recent sands in the Pinaki soils suite. These are free draining low nutrient soils, low in nitrogen and copper. There are several small, isolated patches of hard pans where tree growth is poor. Low lying areas where water can be trapped are often high in organic content and peaty. Areas close to the coast, west of No.2 Arterial Road, are typically raw sands, which are very unstructured, young, infertile and highly erodible.

Block B soils on the East Coast are largely Podzol soils. Orthic granular soils are dominant west of SH1 and provide for better growth than the eastern areas. Generally, conditions in Block B, particularly east of SH1, are more challenging than elsewhere in the forest.

Age Classification

Year planted	2024	CHANGE	2025	Explanation of differences
1972	55.5	0.0	55.5	
1975	101.1	0.0	101.1	
2000	230.3	-111.9	118.4	111.9 ha harvested
2001	286.6	-102.4	184.2	102.4 ha harvested
2002	228.5	0.0	228.5	
2003	221.5	0.0	221.5	
2004	43.5	0.0	43.5	
2005	201.6	0.0	201.6	
2006	495.1	0.0	495.1	
2007	451.9	0.0	451.9	
2008	376.1	-45.3	330.8	45.3 ha harvested (short rotation)
2009	341.2	0.0	341.2	
2010	373.4	0.0	373.4	
2011	467.6	0.0	467.6	
2012	638.3	0.0	638.3	
2013	450.8	0.0	450.8	
2014	718.4	0.0	718.4	
2015	566.2	0.0	566.2	
2016	189.3	0.0	189.3	
2019	26.2	0.0	26.2	
2021	79.3	0.0	79.3	
2022	113.3	0.0	113.3	
2023	96.1	0.0	96.1	
2024	224.7	0.0	224.7	
2025	0.0	255.4	255.4	Re-establishment, May and June 2025
Totals	**6,976.5**	**-4.2**	**6,972.3**	
Awaiting re-establishment	***126.1***	***-10.6***	***115.5***	
Prepared	0		0	
Not prepared	126.1		115.5	
	7,102.6	**-14.8**	**7,087.8**	Areas released to riparian areas from Cpts 402 and 403, after planting. Some awkward slithers between Cpt 403 and the legal boundary were also removed from production.



Forest Health

The last health survey to hand, for Block A, was completed end 2011 (aerial survey at 1,000m parallel transects), to beginning 2012 (ground survey, drive through with 15 health plots). No significant pest or pathogen issues were found. The last health survey to hand, for Block B, was completed end 2019 (ground survey, drive through with 10 health plots). YOE2012 areas were noted to be struggling, despite the application of fertiliser during 2017.

Ongoing informal monitoring by operational staff has revealed no unexpected health issues in the forest. A formalised program of foliage sampling has commenced, with 4-year-old stands to be sampled and sent for analysis each year. Scion have recommended a fertiliser application based on the first sampling and this will be applied during 2025. The intention is to vary application rates and also retain untreated control areas to assess response, or otherwise, to the fertilisation.

Yield models

The following tables show the latest modelling data:

Zone growth indices:

Zone	300i	Site index
Coast	15.0	24.0
Middle	18.0	29.0
Inland	21.0	31.0

Clearfell yield tables, at age 25 years

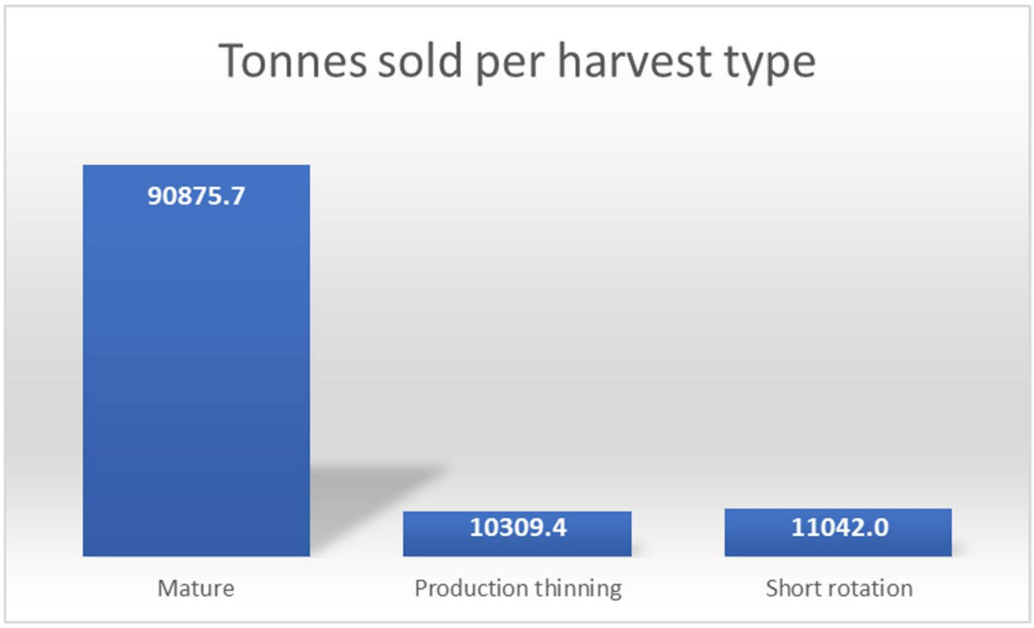
				Clearfell							
Regime	Short Rotation			Production thinned			Unthinned	Waste thinned			Old_Crop
Zone	C	M	I	C	M	I	M	C	M	I	C
V75	0%	0%	0%	25%	28%	26%	0%	26%	27%	27%	0%
S30	0%	0%	0%	14%	11%	20%	0%	15%	15%	22%	5%
PW	50%	50%	50%	3%	4%	2%	47%	3%	2%	3%	0%
Scragg	0%	0%	0%	35%	38%	30%	8%	37%	31%	27%	0%
Strainer	25%	25%	25%	12%	9%	12%	20%	10%	15%	12%	0%
A	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	11%
K	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	16%
KI	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	24%
Pulp	25%	25%	25%	10%	10%	10%	25%	10%	10%	10%	44%
Total	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**
TRV(m3/ha)	432	497	569	372	436	496	535	380	447	507	275

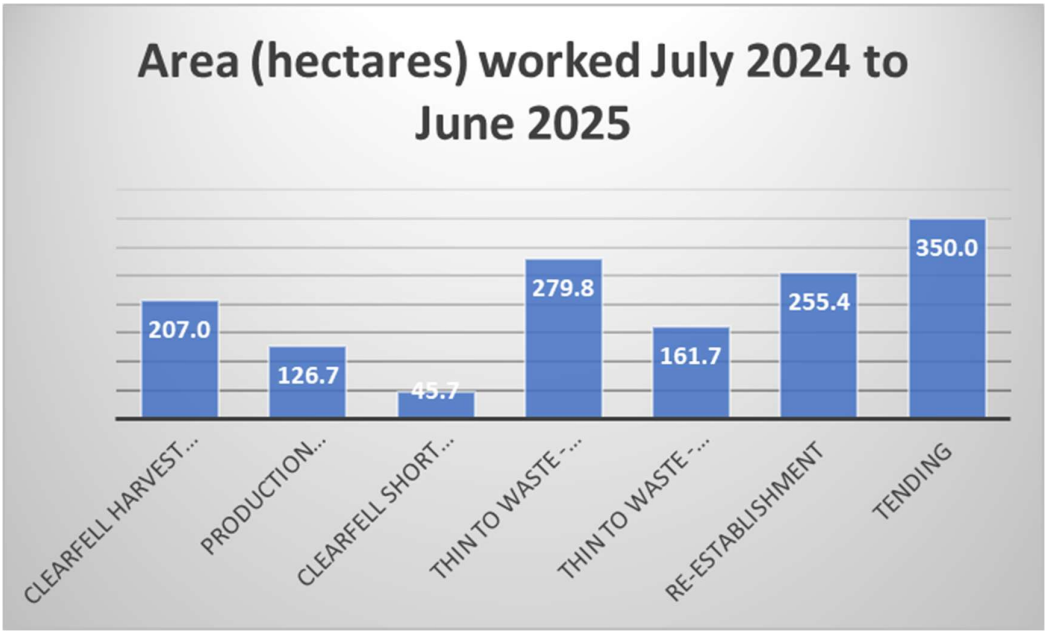
Production Performance

During this year we:

- Clearfell harvested 252.7 hectares (207 full rotation + 45.7 short rotation) to sell 123,270 tonnes;
- Production thinned 126.7 hectares to sell 10,309 tonnes;
- Thinned to waste a further 441.5 hectares; and
- Replanted 255.4 hectares (during May and June 2025)
- Areas lying fallow, awaiting replant, reduced from 126.1 ha to 115.5 ha.

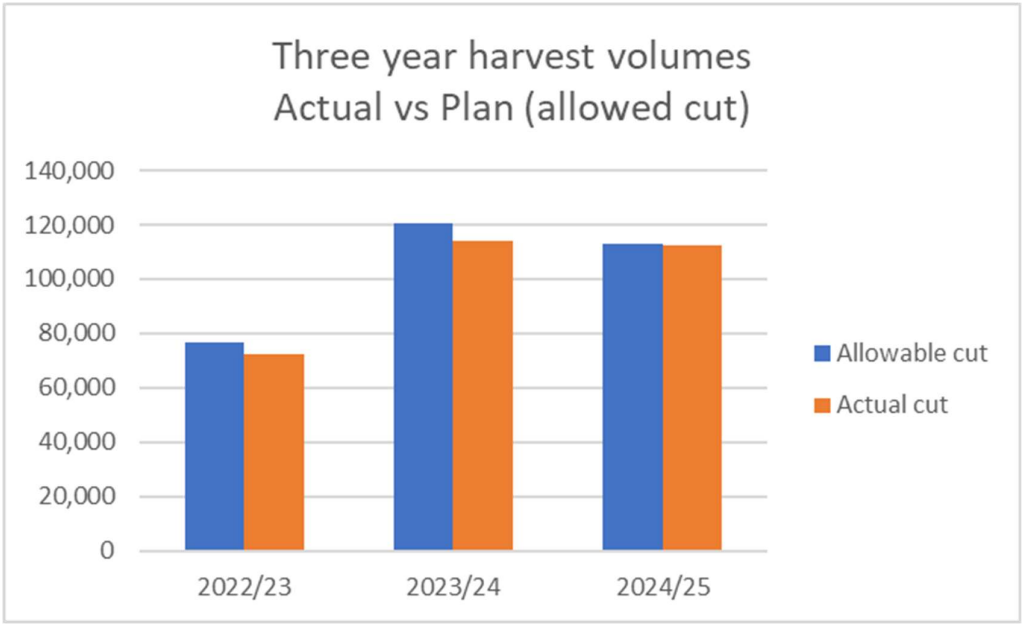
ACTUAL	FY 2024/25
Work days:	238
TONNES SOLD	112,227
Mature	90875.7
Production thinning	10309.4
Short rotation	11042.0
	123,269.18
AREAS WORKED (Ha)	
Clearfell Harvest Mature	207.0
Production Thinning	126.7
Clearfell Short Rotation	45.7
Thin to Waste - manual	279.8
Thin to Waste - mechanised	161.7
TTW- Total	441.5
Re-establishment	255.4
Tending	350.0

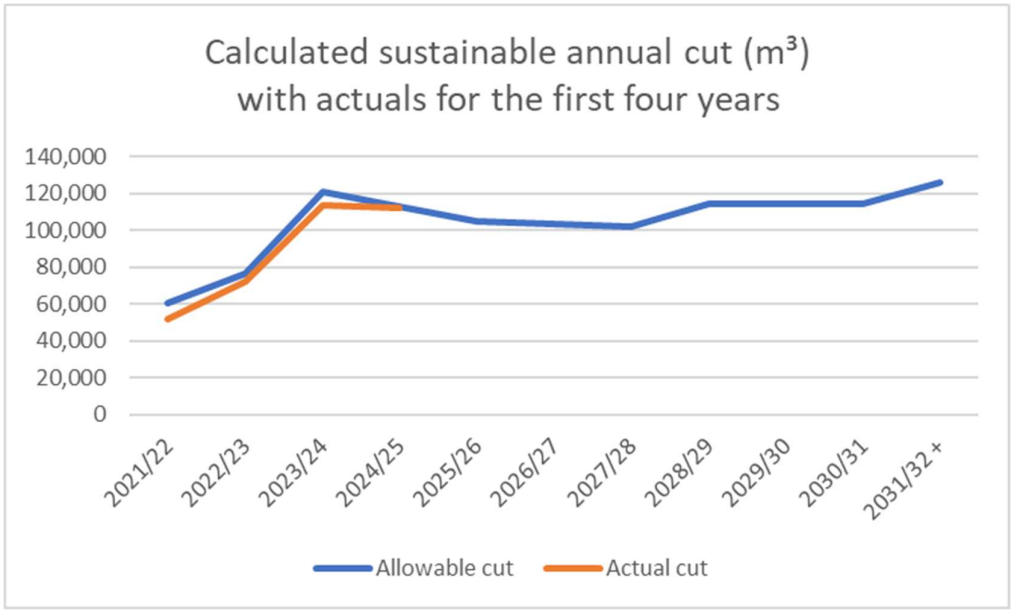




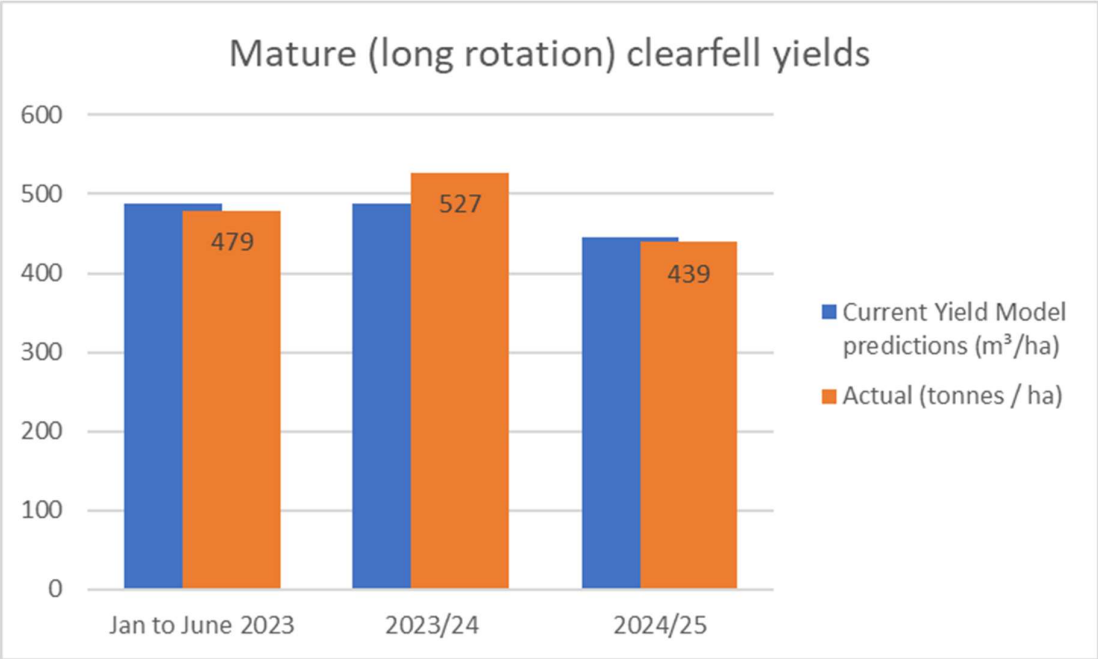
100% of log sales went to domestic mills in Kaitaia and Waipapa, during the year July 2024 to June 2025

Yield Monitoring





2021/22: early harvest of unthinned stands, a silviculture need, this was a budget figure, not a sustainable cut calculation
2022/23: half the year was early harvest of unthinned stands, harvesting mature crop on sustainable cut (45,000m³ for a half year) commenced 2nd half of the year
Years 2023 to 2026/78 includes production thinning, some late thin clearfell and some "old crop" harvests; old crop harvest ends and there is a gap in the production thinning element after that
Allowable cut increases to 126,000m³ from 2031/32 due to the impact of Block B areas coming into the equation.
Each year allowable cut is reviewed and adjusted if necessary - this happens as a part of the annual valuation update and value optimisation calculations. The future sustainable cut shown in the graph above was derived from the July 2025 review.



EMPLOYMENT

General

PINC employs 22 workers in its forestry operation. Included in this number are a Harvesting Manager, a Silviculture Manager and 4 Foreman.

Wages are reviewed annually. Factors influencing whether wages increase are inflation, financial performance of the forestry operation and individual employee performance. As a minimum, in terms of rates of pay, PINC complies with the 'Living Wage' that is adjusted every 12 months.

Forestry employment opportunities are advertised on the PINC web site, the PINC Face Book page and other local Face Book pages. All PINC employees have a connection to PINC's whenua in one form or another.

All new employees must pass a pre-employment drug and alcohol test. A comprehensive induction process supports the integration of new employees into the business.

Training
Critical elements of PINC's approach to training consist of:

- No employee works on their own until they have been assessed as fully competent for the work they have been employed to undertake;
- Every employee has a training plan;
- Every employee must undertake some form of training every year;
- PINC has its own training assessors; and
- From time to time and where appropriate PINC engages North Tec to assist with training and assessing.

Employee Health and Safety
During the year:

- There were 5 near misses
- There were 12 accidents
- There was 1 lost time injury
- There were no notifiable events
- There were no notifiable injuries or illnesses
- Monthly health and safety meetings – 100% compliance
- PPE audits completed – 100% compliance

TRACKING CORRECTIVE ACTIONS
During the year, PINC introduced a CAR Register. Any employee can add actions to the Register. Subsequent to 30 June 2024, we made changes to the management of the CAR Register process. The Register is now maintained by Admin Support, updated weekly with progress etc., and reviewed weekly by the Forestry management team. These changes should allow us to provide more detail on the tracking of corrective actions in next year's report.

ENVIRONMENTAL
Natural areas including 'High Conservation Areas
In 2023 PINC engaged Wildlands Consultants to undertake a survey of natural areas including an assessment of High Conservation Value areas. Based on the Wildlands report there are 23 Natural Areas in PINC's forest. 11of these Natural Areas meet the criteria/definition that result in these 11 areas being classified as HCV's.

HCVs
The following HCV areas were assessed during the year ending 30 June 2025:

- Block A/1 an area of 183.7 (ha) adjacent to Te Oneroa-a-Tōhē being sand dunes with Pōhuehue vineland and Spinifex grassland;
- BLK A/3 an area of 9.3 (ha) being a small dune lake and indigenous vegetation and habitat types; and

- Waha 1 an area of 158.3 (ha) being a large lake system with indigenous vegetation and habitat types on the edges.

The following information is provided as a result of these areas being assessed:

- Block A/1
    - Google Earth maps have provided visual evidence of the recent drift of the sand over the last 10 years which has accelerated due to a number of factors including the grazing by horses of the native plants that have the responsibility for binding the sand together such as Spinifex sericeus and Pohuehue;
    - Fencing – fencing of Te Arai on the southern boundary has not been successful in keeping the horses from accessing Parengarenga Inc whenua;
    - Human visitors – Pig hunters, fishermen, recreational use (4 x 4, motorbikes) can all have a negative impact on the dune environment particularly as access is available along Te Oneroa E Tohe. Signage helps to inform the general public of the fragility Coastal dune environment; and
    - Rubbish - Plastic, rope fragments etc are abundant along flotsam line on the beach.

BLKA/1 Te Arai Rock Dune Creep Oromanga Pa rear right

- BLK A/3
    - Continuing to gather and store carbon as the stand grows;

- Biological diversity has continued to be impacted through the range of negative influences on the environment;
- Water quality was impacted by a number of factors including horse intrusion and Canadian geese;
- Sandy soil helps with soaking up excess water; and
- Surrounding areas have archaeological sites that indicate pre-European occupation.

- WAHA 1

    - Carbon sequestration continues with native planting assisting around Lake perimeter;
    - Biological diversity has been impacted through the range of negative influences on the environment;
    - Water quality impacted by weed/animal pests;
    - Sandy soils help to absorb excess rainwater;
    - Coastal environment with predominant westerly winds coming off the Tasman Sea; and
    - Lake Wahakari was an area tangata whenua used for earlier living areas. Now supplies water to local Te Kao community.

Natural Areas not classified as HCVs

PINC operational processes require that an EIA is completed prior to work commencing in a new compartment. The EIA process includes an assessment of any non HCV Natural Area. During this year PINC completed 16 EIA's across all operations.

PINC's goal in respect of natural areas, including HCV's is, wherever possible, to improve and enhance these areas. Where this is not possible, PINC's objective is to prevent deterioration so as to maintain these areas in their current state. Where necessary, HCV assessments and the natural area EIA process include recommendations to achieve these objectives.

Rare and threatened environmental species (RTEs)

The work undertaken by Wildlands in 2023 also identified plants, birds, bats, lizards and freshwater fish that exist in our forest – our RTEs. PINC is working with Kevin Mathews, a local botanist, to build upon the Wildlands work and to identify strategies to protect RTEs.. PINC's position is that the best option to protect RTES is to protect, maintain and where possible enhance natural areas (including HCVs) that RTES exist in. In addition, PINC also conducts RTE workshops with forestry employees to lift employee awareness of RTE's that exist in the forest. During the year ending 30 June 2025 two workshops were held.

Pekapeka – long tailed bat– an RTE

Water

Protection of the lakes and streams in our forest continues to be an important part of operational planning. In the past, in some cases, new trees have been planted right to the edge of lakes and streams. With the renewed focus on the environment, we are regulated to a buffer zone of between 5 meters and 10 meters depending on the width of the waterway. In some cases, (compartments 402 and 418) we have gone with wider buffer zones in some places. With regard to compartment 418, we left a riparian buffer zone of 10 – 20 meters from the stream boundary from No. 2 Road to the beach which is approximately 3 kms. this is in preparation for future riparian planting along this stream

The Northland Regional Council (NRC) continues to undertake some sampling of water quality in our lakes and streams.

In the year ending 30 June 2025, the NRC completed water quality assessments for Lake Wahakari and Lake Morehurehu.

Lake Wahakari received a 'Fair' TLI score, indicating that the lake ecosystem is impacted by moderate levels of nutrients and algae. Over the past 5 years the ecosystem health in Lake Wahakari has changed due to Total Nitrogen and Ammoniacal Nitrogen increasing and water clairy decreasing over time, altogether influencing the change in TLI from 'Good' to 'Fair' between 2020 and 2024.

Lake Morehurehu received a 'Fair' TLI score, indicating that the lake ecosystem is impacted by moderate levels of nutrients and algae. Over the past 5 years the ecosystem health in Lake Morehurehu has stayed relatively constant.

In addition, NIWA conducted a comprehensive survey of Lake Morehurehu in 2025. Lake Morehurehu was rated 'outstanding'. Water quality was rated 'good' with

submerged vegetation appearing to be re-establishing, some 12 years after its collapse following pine harvesting in the catchment.

Cultural sites
The Heritage New Zealand Pouhere Taonga Act 2014 requires that an organisation intending to harvest timber in a new area must obtain an authority from Heritage NZ before commencing operations in that area. To obtain this authority, the area to be worked in must be inspected by an 'authorised' archaeologist. PINC engages Dr. Justin Maxwell (Sunrise Archaeology), who is based in Mangonui, to provide support to ensure that PINC complies with all requirements contained in The Heritage New Zealand Pouhere Taonga Act 2014.

As of 30 June 2025, Dr. Maxwell has completed and recorded the following:

- 12 compartments surveyed
- 0 recorded sites were relocated
- 5 new sites in Compartment 401 and one new site in Compartment 402 were recorded.

PINC also meets on an as required basis with representatives from Te Runanga Nui o Te Aupōuri and the local community (Cultural Advisory Group) to consult on cultural issues where forestry operations might have the potential to impact on issues of cultural significance. During the period covering this report PINC met with the Cultural Advisory Group on 2 occasions. In addition, there was 1 field trip to visit cultural sites in the forest.

From time-to-time operational activities might uncover a cultural site that is not on record. PINC has an "Accidental Discovery Protocol" SOP that sets out how to manage such a situation. In the year covering this report one archaeological site not previously recorded was discovered and managed in accordance with the Accidental Discovery Protocol SOP.

COMMUNITY RELATIONS
PINC has continued to be active in the local community for the year ending 30 June 2024. Examples of this include:

- Cultural Advisory Group meetings to get input from locals and Iwi in respect of important archaeological / cultural issues relevant to the whenua on which our forest has been planted;
- Participation in and resource support provided to the local civil defence response team;
- Key to locked gates that provide access through our forest for residents living in the haukāinga to access beaches on the west and east coasts to collect kai moana;
- Access into our forest for recreational pig hunting;
- Significant economic benefit by way of wages paid to locals amounting to $1.46m and $4.52m paid to local contractors.
- Other benefits provided to the local community, individuals and teams included $27,884 for an audio-visual package for Te Kao marae, mutton contributions and monetary koha towards fund raising efforts/sporting event sponsorship and church events.

Business as Usual Monitoring Activities

In addition to what is provided in this report, the following activities are monitored to ensure that they take place as required and comply with PINC processes and policies:

- Daily toolbox meetings
- Monthly health and safety meetings
- Monthly health and safety audits
- Incident reporting
- Safe Behaviour observations
- HVC and natural area monitoring reports
- Cultural / archaeological assessments
- Monthly Environmental Audits
- New hazards identified and documented
- New worker induction
- New worker training plans and records
- Harvest planning
- Pre assessment felling planning
- Monthly Log Audit data (for Crew 1&2)
- Quality control audits on thinning to waste work and mechanical thinning
- Monthly mark ups
- CARs Register
- Chain of Custody induction for new drivers
- Contractor Inductions
- Fire Protection
- Pest and Predator Control including wilding pines documentation
- Planting/spraying programs

We have improved the way that we manage the above processes and should be able to provide more data in next year's report

CONCLUSION

As previously stated, the FSC Forest Stewardship Standard for New Zealand (FSC-STD-NZL-02-2023 V2-0) FSC-STD-50-001 V2-1 requires PINC to annually publish a report detailing monitoring activities undertaken each year and to make that report publicly available. PINC meets this requirement by making the report available at www.parengarenga.co.nz . Further information is available at info@parengarenga.co.nz