FSC® FOREST MANAGEMENT PLAN

Ponga Silva Gisborne Forests

Ponga Silva Limited

February 2024 – February 2029

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1. What is this Plan?

About this Plan

This specific forest management plan provides details about the following 6 forests, referred to as the Ponga Silva Gisborne forests:

1. Mangaiti
2. Mangarakai
3. Mangatarata
4. Mata
5. Onetohunga
6. Te Rawhiti

While the following plan provides details for the six forests, as at 14 November 2024, Mangaiti and Mangarakai forests are not included in the PF Olsen FSC Group Scheme (they will be added at a later date).

This plan is to be used in conjunction with the PF Olsen Standard FSC® forest management plan, which outlines the typical management applied to PF Olsen FSC Group Scheme forests.

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

Foundation Principle

Ponga Silva Ltd (Ponga Silva) is committed to adopting the Forest Stewardship Council (FSC) Principles and meeting the FSC Criteria relevant to forest management.

Ponga Silva is committed to the PF Olsen FSC Group Scheme SCS-FM/COC-400064 processes and associated documents.

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

2. The Forest Land

Location and access

The Ponga Silva Gisborne Forests consists of six contiguous forests totalling 3,468 hectares in the Gisborne/Tairawhiti region. They are located on Mata Road, between 10 km and 20 km inland from Tokomaru Bay on the Gisborne coast.

A location map is shown on the next page. Forest maps are shown in Appendix 1.

Forest Area

Forest	Productive Area (ha)	Indigenous Reserve Area (ha)	Non-productive Area (ha)	Total Forest Area (ha)
Mangaiti	580.6	12.5		**593.0**
Mangarakai	439.4	8.3	4.3	**452.0**
Mangatarata	1,391.0	125.3		**1,516.3**
Mata	246.5	7.4		**253.9**
Onetohunga	467.2	122.4		**589.6**
Te Rawhiti	271.7	40.7		**312.5**
Total area	**3,396.5**	**316.5**	**4.3**	**3,717.3**

Legal ownership

Appendix 2 shows the legal description of the land on which each forest is situated, along with its tenure status.

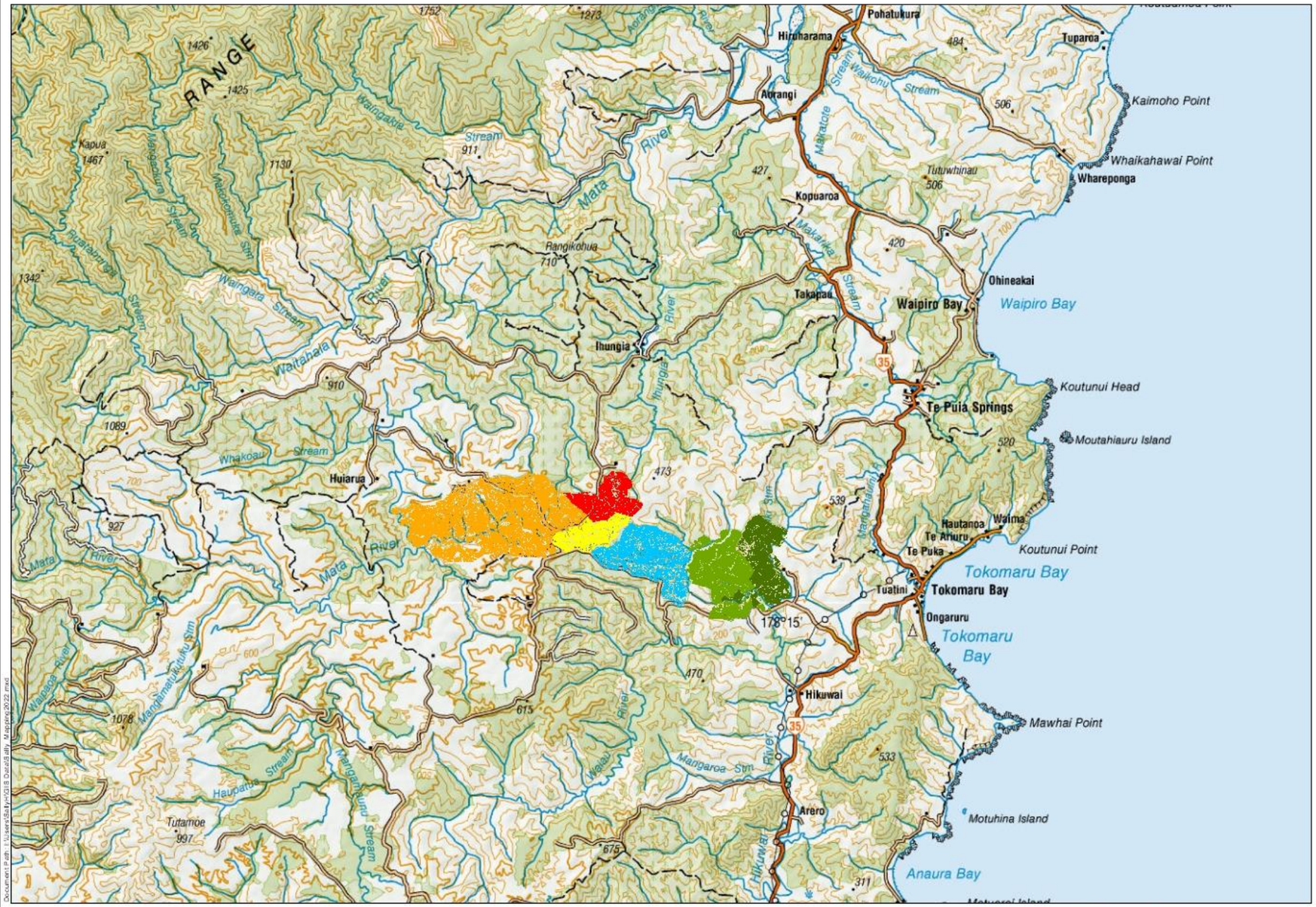
Markets

Export and domestic markets are both accessed via Gisborne.

Distances from forest to log markets

Potential Market or Export Port	Distance from Forest (km)	Log market
Gisborne Port	100	Export
Gisborne	100	Domestic (e.g. Kiwi Lumber Mill, Wood Engineering Technologies Mill)

Location Map
Ponga Silva Gisborne Forests



Topography

The geology underlying the forests primarily comprises middle to late Miocene mudstone and sandstones, such as Areoma sandstone, that are part of the Tolaga Group. They are characterised by slightly calcareous mudstone with decimetre to metre bedded fine-grained fossiliferous sandstone (Wildlands 2023). These layers have a tightly folded, fractured, and sheared structure which indicates that they have been displaced from the location where they were deposited.

The older layers are generally overlain by more recent mudstone that has been eroded to form steep to gently rolling hills. This material is prone is to slumping and erosion.

Topography is described in the table below for each forest. Due to the topography, harvesting will be road line salvage followed by cable hauler over long spans.

Forest	Topography
Mangaiti	Moderate rolling to steep
Mangarakai	Moderate rolling to steep
Mangatarata	Moderate to very steep, incised gullies
Mata	Moderate rolling to steep
Onetohunga	Moderate rolling to steep, incised gullies
Te Rawhiti	Moderate rolling to steep

The forests range in altitude from 65 to 730 metres above sea level.

Soil

Soils in the hill country are moderately leached and fertile loams. In higher rainfall areas or over sandstone, soils are more strongly leached and less fertile. Podzols occur where rainfall exceeds 2,000 millimetres per annum. Volcanic ash soils occur on the lower slopes. The amount of pumice in the soil, which was deposited from the Taupō and Waimihia eruptions, increases towards the southeast. Moderate to severe soil erosion is common, particularly in steep areas. Historic slips have resulted in exposed mudstone faces in the steepest of sites.

Climate

The following climate data is derived from the National Institute of Water and Atmospheric Research[1] (NIWA).

- The average rainfall is between 1600mm and 1800mm per year.
- The mean annual temperature is 13 degrees Celsius.
- Annual sunshine hours are in excess of 2,300 hours.
- True tropical cyclones (very low-pressure, hurricane-force winds) are very rare.
- Storms of tropical origin (which may never have been fully developed tropical cyclones) affect New Zealand about once or twice each year, mainly between the months of December and April. They usually bring heavy rain and strong easterly winds. The Gisborne district has experienced numerous extreme weather events, with significant damage and disruption caused by flooding and high winds.

The National Climate Change Risk Assessment for New Zealand[2] warns that extreme weather events are becoming more frequent and severe. Large increases in extreme rainfall are expected everywhere in the country. The intensity of tropical cyclones in the North Island and northern South Island is also projected to increase.

[1] Chappell, P.R. 2006. The Climate and Weather of the Gisborne District 2nd edition. NIWA Science and Technology Series Number 70. ISSN 1173-0382.
[2] National Climate Change Risk Assessment - Main Report (environment.govt.nz)

3. Ecological Information

Ecological District

The Ponga Silva Gisborne forests fall within the East Cape Ecological Region, and the Waiapu Ecological District (code 20.02). Refer to following information about the Ecological District (ED):

https://www.doc.govt.nz/documents/science-and-technical/ecoregions2.pdf

FSC requirement: Reserves

The Ponga Silva Gisborne forests do not meet the FSC requirement[3] of having 10% or more of the total area as reserves. There is a 55 ha (1.5%) shortfall across the estate.

The 55 ha shortfall will be met by a land retirement project and the creation of a wetland which will be progressively implemented within the next 10 years (by December 2033). The shortfall solution detailed plan will be finalised by December 2024 and included in the next major review of this FSC forest management plan (December 2028).

1. Retiring areas unsuited for production forestry, and managing the areas to allow reversion of the plantation forest to indigenous vegetation. This will be a progressive project, formally removing areas from production within 10 years (by December 2033). The areas to be retired will be considered using the following likely criteria:
    a. Practicality to gain access (engineering).
    b. Practicality to harvest and potential impact on already established indigenous vegetation.
    c. The susceptibility of the land of shallow land sliding.
    d. The connectivity of the areas with major waterbodies.
    e. The future land classification (work in progress by Gisborne District Council).
2. Creation of a wetland in Mangatarata (approx. 2.1 ha). This proposed project is being scoped and costed. This will also be a multi-year project.

Reserve areas in Ponga Silva Gisborne Forests by Ecological District

[3] FSC-STD-NZL-02-2023 Plantations EN. The FSC Forest Stewardship Standard for New Zealand.
FSC Forest Stewardship Standard for New Zealand (NZ FSS) | Forest Stewardship Council

Ecological District	Forest	Productive Area (ha)	Indigenous Reserve Area (ha)	Total Forest Area (ha)	Reserve %
Waiapu	Mangaiti	580.6	12.5	593.0	2.1
	Mangarakai	439.4	8.3	452.0	1.8
	Mangatarata	1,391.0	125.3	1,516.3	8.3
	Mata	246.5	7.4	253.9	2.9
	Onetohunga	467.2	122.4	589.6	20.8
	Te Rawhiti	271.7	40.7	312.5	13.0
	Total Estate	**3,396.5**	**316.5**	**3,717.3**	8.5

Threatened Environment Classification

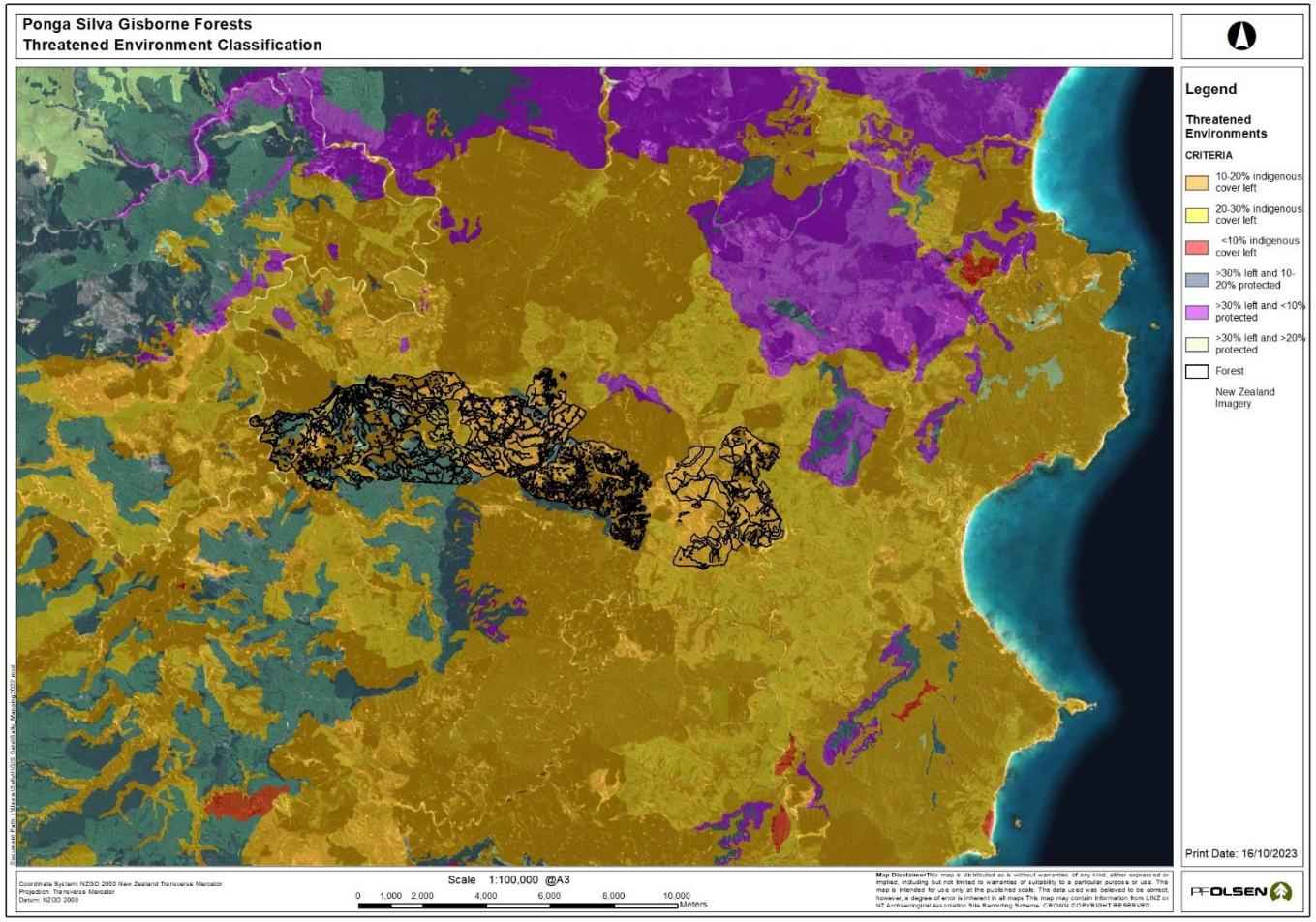
The Threatened Environment Classification (TEC) is a coarse-level assessment and must be tempered with other ecological data to provide a meaningful fine-level ecological assessment of the indigenous reserves. Most of the indigenous reserves fall in the 10 – 20 % remaining category, the second least-represented of the Threatened Environment Classification[4] classes. A map over the next page shows that this distribution is typical of plantation forests in the area.

Reserve areas in Ponga Silva Gisborne Forests by TEC category

Forest	< 10% remaining	10 – 20 % remaining	20 – 30 % remaining	> 30 % remaining & < 10 % protected	> 30 % remaining & 10 – 20 % protected	> 30 % remaining & > 20 % protected	Total Area (ha)
Mangaiti		12.5					**12.5**
Mangarakai		8.3					**8.3**
Mangatarata		106.3			18.5	0.5	**125.3**
Mata		7.4					**7.4**
Onetohunga		121.9			0.5		**122.4**
Te Rawhiti		38.5			2.2		**40.7**
Total Area (ha)		**294.9**			**21.2**	**0.5**	**316.5**

[4] Threatened Environment Classification » Manaaki Whenua (landcareresearch.co.nz)

Threatened Environment Classification Map



4. Cultural and Social Aspects

Forest history

Ponga Silva purchased the Tokomaru Bay estate (Mangatarata, Te Rawhiti, Mata and Onetohunga forests) in November 2021. Mangaiti Forest was purchased in November 2022 and the purchase of Mangarakai is imminent. The forests are predominantly second rotation forests.

Current social profile

The predominant land use surrounding the Ponga Silva Gisborne forests is a mixture of pastoral farming and plantation forestry, with small villages servicing rural communities. There is a modest contribution to the local economy by way of added incremental employment from the Ponga Silva Gisborne forests.

Historic and archaeological sites

Records from the 'Archsite' web indicate that one of the Ponga Silva Gisborne forests has recorded archaeological sites within the forest boundary.

Forest	Archaeology
Mangaiti	No sites within the forest, but the forest is adjacent to Mangarakai forest.
Mangarakai	Archaeological authority 2020/187 7 recorded sites, potential for unrecorded sites.
Mangatarata	No sites within forest. Recorded site 600 m north of forest boundary (pit/terrace).
Mata	No sites within forest, or within 1km of forest boundary.
Onetohunga	No sites within forest, or within 1km of forest boundary.
Te Rawhiti	No sites within forest, or within 1km of forest boundary.

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

Tangata Whenua

Ngāti Porou are the tangata whenua associated with Ponga Silva Gisborne forests (in accordance with Te Puni Kōkiri website). They have a joint management agreement with Gisborne District Council (GDC) over the Waiapu Catchment, and the following Statutory Acknowledgements:

Legislation for this settlement was passed on 29 March 2012.

Statutory Acknowledgement:
- Waiapu River and its tributaries
- Uawa River and its tributaries
- Turanganui River and its tributaries within the Ngāti Porou area of interest

Giving Effect to the Statutory Acknowledgement:
1. Relevant consent authorities, the Environment Court, and the Historic Places Trust to have regard to the statutory acknowledgement.
2. Relevant consent authorities to forward to the governance entity summaries of resource consent applications affecting an area.
3. Enable the governance entity, and any member of Ngāti Porou, to cite the statutory acknowledgement as evidence of Ngāti Porou's association with an area.

Iwi Management Plan
To date no iwi management or iwi environmental management plans have been developed.

Consideration should be given to the joint management agreement when operating within the Waiapu catchment.

Tenure & resource rights

Ponga Silva Limited will manage access for customary uses through the PF Olsen permit system.

Neighbours

Appendix 3 lists the forest neighbours for the Ponga Silva Gisborne forests. Some or all of these parties should be consulted when operations are proposed in forest areas adjacent to their boundaries.

5. Regulations

National Environmental Standards for Commercial Forestry (NES-CF) Erosion Susceptibility Classification

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

The table below shows the productive plantation area of each forest by the respective NES-CF ESC. A significant proportion of the Ponga Silva Gisborne forests fall within the ESC 'High' and 'Very High' zones.

Productive plantation area (ha) within each ESC Class

Forest	Low	Moderate	High	Very High	Very High (8e)	Total
Mangaiti	9.0	22.4	183.7	365.5		**580.6**
Mangarakai	29.4	1.5	272.1	136.4		**439.4**
Mangatarata		864.3		526.6		**1,391.0**
Mata		48.4		198.1		**246.5**
Onetohunga		23.9	0.1	443.2		**467.2**
Te Rawhiti		71.2		200.5		**271.7**
Total	**38.4**	**1,031.7**	**455.8**	**1,870.4**	**0**	**3,396.5**

Council RMA Plans

The Ponga Silva Gisborne forests fall under the jurisdiction of the Gisborne District Council, which is a unitary authority fulfilling both district and regional council functions.

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

- Harvesting
- Earthworks
- Replanting
- Discharges, disturbances and diversions
- Archaeological and waahi tapu sites
- River crossings
- Slash traps

- Work around / adjacent to wetlands and riparian areas
- Afforestation

They also have rules for aerial spraying operations, and around any land disturbing activities on Land 3A Overlay classified areas, of which there are 573 ha of productive area within the estate (Appendix 4).

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

Consents & authorities

There are several current resource consents and Archaeological Authorities relevant to the Ponga Silva Gisborne forests.

Forest	Consent number	Expiry date	Activity
Mangaiti	LV-2018-108138-00 LR-2018-108139-00	29/03/2028	Harvesting, vegetation clearance and variation to low level crossing
Mangarakai	LR-2019-109028-00 NF-2019-109084-00 LL-2019-109326-00 LV-2019-109327 LU-2019-109328-00		Harvesting, earthworks, quarries, replanting, bridge and temporary crossings
	2020/187	15/10/2024	Archaeological authority
Mangatarata	NF-2020-109501-00 LL-2020-109746-00 LV-2020-109502-00 LR-2020-109503-00 DW-2020-109504-00	27/08/2035	Harvesting and earthworks, vegetation clearance, stormwater discharge and slash traps
	NF-2022-111038	31/05/2025	Afforestation and replanting consent
Mata	LR-2018-108392-00 LH-2018-108417-00 LE-2018-108418-00 LL-2018-108419-00	12/09/2028	Harvesting, earthworks
Onetohunga	LL-2019-108799-00 LV-2019-108947-00 LH-2019-108948-00 LE-2019-108950-00	30/06/2029	Harvesting consent
Te Rawhiti	LV-2018-108136-00 LR-2018-108140-00	12/04/2026	Harvesting and earthworks

Emissions Trading Scheme

The Ponga Silva Gisborne forests have areas registered under the New Zealand Emissions Trading Scheme (ETS). Further area in Mangatarata is in the process of being registered.

	Area registered in the ETS	
Forest	ha	% productive area
Mangaiti	0	0
Mangarakai	448	100%
Mangatarata	13	1%
Mata	199.5	81%
Onetohunga	136	29%
Te Rawhiti	275.3	100%
Total	1,071.3	

6. Managing environmental risk

Assessment of environmental risks

Refer to the Standard FSC Forest Management Plan.

Erosion and sedimentation

It is recognised that some areas within the estate fit the criteria of steep, erosion prone land:

- NES-CF ESC class High/Very High
- Gisborne District Council Land Overlay 3A (573 ha of productive area; Appendix 4)
- Geology and soil type

A holistic approach will be applied to the planning of harvesting, earthworks and planting/replanting of forest land within the Ponga Silva Gisborne forests to minimise the risk of accelerated erosion. This will be applied in parallel with the planning and monitoring required under the NES-CF, including:

- Schedule 3: Afforestation and replanting plan specifications
- Schedule 4: Forestry earthworks management plan
- Schedule 6: Harvest plan

PF Olsen Ltd, as the forest manager for Ponga Silva Ltd, will utilise the latest knowledge and practices at a catchment level scale to provide recommendations to Ponga Silva. Current guidelines include:

- NZFOA Forest Practice Guidelines 2020[5]
- Eastland Wood Council Good Practice Guideline for Catchment Management 2022[6]
- Rainfall-induced shallow landslide susceptibility for Tairāwhiti Gisborne[7]. Maps of the modelled landslide susceptibility by forest is in Appendix 5.

Risk mitigation techniques applied may include:

- Pre-operation identification of erosion-sensitive catchments
- Reduction in catchment-level clearfell extent (spatial and temporal)
- Specific management of harvest residues
- Instruments to prevent harvest residues leaving the forest:

[5] Forest Practice Guides • Documents Library: Forest Owners Association (nzfoa.org.nz).
[6] 22-06-23-EWC-Good-Practise-Guideline-for-Catchment-Management-23-02.pdf (eastlandwood.co.nz).
[7] Spatial model produced for Tairāwhiti Gisborne as part of the Smarter Targeting of Erosion Control (STEC) MBIE Endeavour research programme (2018-2023) led by Manaaki Whenua – Landcare Research.

    - Live trees as slash traps in riparian zones
    - Conventional slash traps in riparian zones
- Change of regime or species in targeted sites
- Land retirement to a non-productive use in areas of unacceptable risk
- Requirements to align with FSC NZ indicators 6.7.17 and 6.7.18

NES-CF Red ESC Zone Monitoring

Under the updated FSC Forest Stewardship Standard for New Zealand (FSC-STD-NZL-02-2023 Plantations EN), there now requirements around the use, management and monitoring of plantation forests on Red ESC zone land. The table below identifies the areas of each of Ponga Silva's Gisborne Forests affected by the updated standard. Appendix 6 contains details of each forest's Red ESC areas, as well as monitoring and management activities.

Forest	Area of Red ESC (ha)	Total Productive Area (ha)	Percentage of Forest affected
Mangaiti	365.5	579.0	64%
Mangatarata	523.5	1,371.1	38%
Mata	198.1	246.5	80%
Onetohunga	443.2	467.3	95%
Te Rawhiti	200.6	271.8	74%
Total	**1,730.9**	**2,935.7**	

Infrastructure damage or service disruption

The following infrastructure is within/adjacent to the Ponga Silva Gisborne Forests. It is recognised that forestry operations may pose a risk to these.

Forest	Infrastructure/Service feature
Mangaiti	Powerlines and Mata Road on southern boundary
Mangarakai	
Mangatarata	Cellphone/internet tower on NW boundary. Powerlines through NE side of forest
Mata	Mata Road on southern boundary. Powerlines through eastern side of forest and along NE boundary
Onetohunga	Mata Road along southern boundary

Te Rawhiti	Powerlines and Tuakau Road run through centre of the forest

Pests and diseases

The Gisborne Regional Pest Management Plan (RPMP) includes plant and animal pest species that are or may be present within the forests. A full list of species can be found online at: Regional Pest Management Plan | Gisborne District Council

Plant pests

Plant pest species noted within the Ponga Silva Gisborne forests include the following. Those that fall under the RPMP have the specific programme noted in brackets:

- Wilding pines (Site led)
- Goutweed
- Ornamental cherry
- Ivy (Site led)
- Lupin
- Pampas (Sustained control)
- Sweet briar (Site led)

Animal pests

Evidence of the following animal pests have been sighted, or they are highly likely to be present. Those that fall under the RPMP have the specific programme noted in brackets:

- Feral goat (Sustained control)
- Red deer (Site led)
- Fallow deer (Site led)
- Feral horse
- Feral sheep
- Possum (Sustained control)
- Rats (Site led)
- Mice
- Stoats (Site led)
- Weasels (Site led)

Fire

Ponga Silva Gisborne forests fall within the Tairāwhiti Forest and Emergency NZ region for forest fire management. The fire plan contains additional key information regarding the protection of land and management of fires.

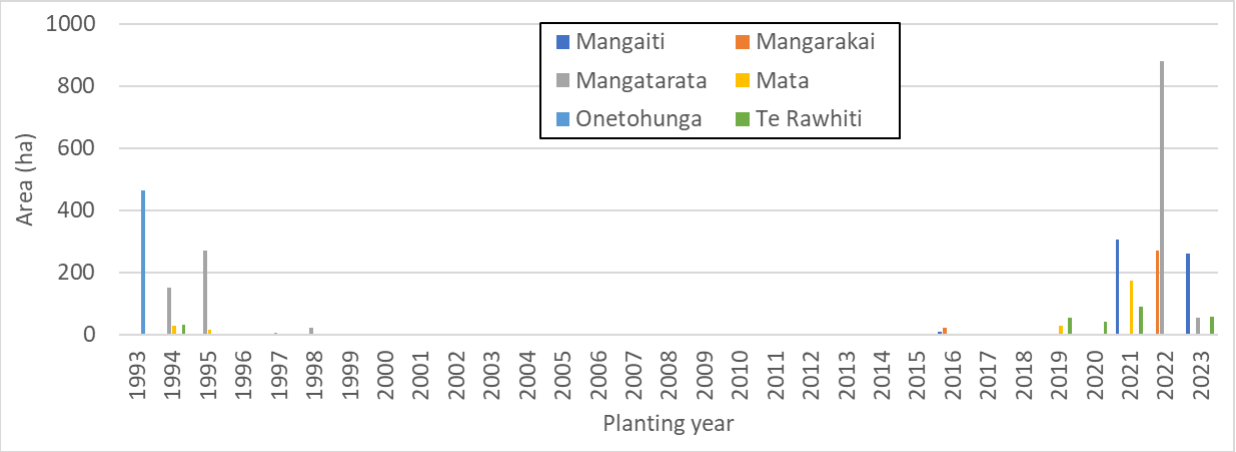
https://www.fireandemergency.nz/assets/Documents/fire-plan/Tairawhiti-Fire-Plan-2021-2024-approved.pdf

7. Commercial Plantation Estate

Current crop

Ponga Silva Gisborne forests are predominantly planted in radiata pine (*Pinus radiata*). There is a small (2.4 ha) area of *Cupressus macrocarpa* in Onetohunga and 4.3 ha of non-productive riparian poplar plantings in Mangarakai.

The productive area by year planted is shown in the graph below.



Tending

The first rotation forest was pruned and thinned. The oldest crop of the second rotation is coming up to the age of first pruning. The decision has not yet been made whether to implement a framing or clearwood regime yet. Pruning may be recommended in specific locations following cost benefit analyses.

Tree nutrition

The soils are generally not deficient in nutrients for healthy tree growth.

8. Harvesting Strategy

Harvesting strategy

The optimum harvest age for *Pinus radiata is* around 27 years old. The actual age of harvest will be subject to many variables, including the requirement to mitigate the effects of harvesting on steep land prone to landslides.

Upcoming harvesting is expected to be staged over approximately 6.5 years once the log market stabilises, with a possible start in early 2024. This will be reviewed in light of any amendments to the Tairawhiti Resource Management Plan. Due to the topography, harvesting will be road line salvage followed by cable hauler over long spans.

Forest	Harvestable area
Mangaiti	-
Mangarakai	-
Mangatarata	439 ha harvest age. 50 ha harvest ready. 100 ha roadlined and awaiting infrastructure construction.
Mata	38 ha harvest age. 20 ha harvest ready. Some areas may not be harvested.
Onetohunga	347 ha harvest age. 200 ha harvest ready. Some areas may not be harvested.
Te Rawhiti	27 ha harvest age and harvest ready.

Land retirement

There are some landslide prone areas within the Ponga Silva Gisborne forests. As these areas are identified, during harvest and replant planning, decisions will be made with Ponga Silva Ltd as to the best use of the land, which may include a non-traditional plantation forest use.

Infrastructure

Infrastructure is mostly in place throughout the estate. The forests are close to, or have just completed, the first rotation harvest. Prior to harvesting, infrastructure maintenance and minor upgrades may be required.

9. Indigenous Biodiversity

Indigenous reserves

Indigenous reserves are the areas of naturally occurring indigenous vegetation within each forest that have been identified as part of the ecological survey. These areas are not all legally protected but are managed to meet the FSC Principles and Criteria. Appendix 7 shows the ecological management plan for the Ponga Silva Gisborne forests.

All of the Ponga Silva Gisborne forests fall within the Waiapu ED. Today, most of the Waiapu ED has been converted to exotic pasture (40% cover), or plantation forest (34%). Only 20% of the ED currently comprises indigenous vegetation.

Much of the estate's indigenous reserve area falls within Mangatarata forest (126 ha, 40%). The most ecologically significant sites also fall within Mangatarata forest. This is based on the rarity of the forest type that remains today, vs the extent in pre-human times. Protection Management Area (WR82 Waikōpiro Stream) is also located within Mangatarata Forest.

Indigenous reserve areas by protection category

Forest	Special	Full	Limited	Passive	Total (ha)
Mangaiti				12.5	**12.5**
Mangarakai				8.3	**8.3**
Mangatarata	37.1	15.0	13.6	59.6	**125.3**
Mata				7.4	**7.4**
Onetohunga			62.4	60.0	**122.4**
Te Rawhiti			34.4	6.3	**40.7**
Total (ha)	**37.1**	**15.0**	**110.4**	**154.1**	**316.5**

Protection granted to the indigenous reserves

Forest	SNA[8] (ha)	NZ Forest Accord (ha)	Management plan (ha)	Total (ha)
Mangaiti	-	9.0	3.5	**12.5**
Mangarakai	-	3.0	5.3	**8.3**
Mangatarata	37.1	72.7	15.5	**125.3**
Mata	-	7.4	-	**7.4**
Onetohunga	-	111.2	11.2	**122.4**
Te Rawhiti	-	38.3	2.4	**40.7**
Total (ha)	**37.1**	**241.6**	**36.9**	**316.5**

High Conservation Value (HCV) Forests

Natural areas within the Ponga Silva Gisborne forests were assessed against the HCV criteria. None met the criteria for HCV status (2023 Wildland Consultants report[9]).

Threatened species

Based on the ecological survey report prepared by Wildland Consultants the following species are either present or likely to be present within Ponga Silva Gisborne forests.

Flora The rare species listed below are in the *Myrtaceae* family (except poroporo). The Myrtle family are at risk of myrtle rust, hence their threat class has been elevated. Poroporo favours recently disturbed sites, and has been recorded on the margin of a reserve adjacent to recent clearfell areas.

Birds A total of 15 indigenous bird species were identified in the 2023 Wildland Consultants survey. Two of these have a national threat status. The NZFOA New Zealand Falcon Management Guide: Plantation Forestry[10] is to be followed if kārearea are found within the forest boundaries.

[8] Significant Natural Areas (SNAs) are areas that contain significant indigenous vegetation and/or significant habitats of indigenous fauna. SNAs are identified by the local territorial authority and protected by the Resource Management Act 1991.

[9] Wildlands. (2023). Natural area survey and Assessment of High Conservation Value Areas of Ponga Silva Forests, Gisborne. Contract Report No. 6604a.

[10] https://www.wingspan.co.nz/PDF/Forestry-Management-Protocols-final.pdf

Bats Long-tailed bats are likely to be present in the forests as suitable bat habitat is present, and populations are known nearby. Pre-harvest surveys are recommended.

Lizards & Frogs No lizard or frog species were found during the survey period. However, several species have been recorded near the forests. The likelihood of presence is noted in the table below.

Overview of threatened flora and fauna

Type	Species	Threat Class
Flora	Kānuka	Threatened - Nationally Vulnerable
	Mānuka	At Risk - Declining
	Climbing Rātā (*Metrosideros colensoi*)	Threatened - Nationally Vulnerable
	White Rātā *Metrosideros diffusa*	Threatened - Nationally Vulnerable
	Poroporo (*Solanum aviculare*)	Threatened - Nationally Vulnerable
	Rōhutu (*Lophomyrtus obcordate*)	Threatened - Nationally Critical
Birds	NZ Falcon - Kārearea (*Falco novaeseelandiae*)	At Risk - Recovering
	Pipit - Pīhoihoi (*Anthus novaeseelandiae novaeseelandiae*)	At Risk - Declining
Bats	Long-tailed bat (*Chalinolobus tuberculata*)	Threatened - Nationally Critical
Lizards & frogs	Hochstetter's frog (*Leiopelma hochstetteri*)	Possible - At Risk- Declining
	Barking gecko (*Naultinus punctatus*)	Possible - At Risk- Declining
	Copper skink (*Oligosoma aeneum*)	Possible - At Risk- Declining
	Ornate skink (*Oligosoma ornatum*)	Possible - At Risk- Declining
	Striped skink (*Oligosoma striatum*)	Possible - At Risk- Declining

iNaturalist[11] (Biodiversity in Plantations) will be used to record sightings of important indigenous fauna or flora discovered in the forest.

[11] https://www.inaturalist.org/projects/biodiversity-in-plantations

Fish

Indigenous fish species likely to be within the forests have been identified from the Wildlands report, the NES-CF Fish Spawning Indictor tool and Freshwater Environments New Zealand.

Probability of presence of fish* species * threatened fish species are in **bold**.

Forest	**Longfin eel**	**Bluegill bully**	**Torrent fish**	**Koaro**	Crans bully	Common bully	Shortfin eel
Mangaiti	moderate	moderate	moderate	low	moderate	moderate	low
Mangarakai	moderate	moderate	moderate	low	moderate	moderate	low
Mangatarata	moderate	low	low	moderate	low	moderate	low
Mata	moderate	low	low	moderate	low	moderate	low
Onetohunga	moderate	moderate	moderate	low	moderate	moderate	low
Te Rawhiti	moderate	low	low	moderate	low	moderate	low

Key ecological management activities are outlined in Appendix 6.

10. Other Special Values: Everything but the timber

Recreation

Ponga Silva Gisborne forests are open for recreation subject to safety requirements. Any approved access is managed through the PF Olsen forest access permit system (for areas outside legal public access areas). For information on how to apply for a permit, please contact the PF Olsen Gisborne Office 06 868-5426.

There is some recreational hunting within the Ponga Silva Gisborne forests but due to the significant areas of young crop there is very active pest control being carried out.

Following the intent of the Outdoor Access Code[12] (published by Herenga ā Nuku - Outdoor Access Commission) and any signage / barriers in place within the forest, is expected behaviour. Closures will also apply during times of high fire risk, any *force majeure* state and during forestry operations.

Public access roads

According to the information available on the Herenga ā Nuku - Outdoor Access Commission website[13], there are formed and unformed legal roads running through the Ponga Silva Gisborne forests. A map is included in Appendix 8. Refer also to the Herenga ā Nuku - Outdoor Access Commission website[14].

These areas are open to the public, subject to any temporary closures as required for safety. Temporary closures can only be undertaken in conjunction, and with the authority, of the local Territorial Authority.

Anyone who accesses legal public access areas within Ponga Silva Gisborne forests are expected to abide by the intent of the Outdoor Access Code[15] (published by Herenga ā Nuku - Outdoor Access Commission) and signage or barriers placed at track or public access points. Requirements for valid DOC permits for firearms and/or dogs must be observed.

[12] https://www.walkingaccess.govt.nz/assets/Publication/Files/Outdoor-Access-Code/0fcf4d2e5b/Outdoor-Access-Code.pdf
[13] https://www.herengaanuku.govt.nz/
[14] https://maps.walkingaccess.govt.nz/Viewer/?map=b1d1e76a6c754d11b3f3fd9dfce1eb12
[15] https://www.herengaanuku.govt.nz/knowledge/responsible-behaviour/the-outdoor-access-code-2/

Other special values

There are no other uses of the Ponga Silva Gisborne Forests.

Non-Timber Forest Products

There are no FSC certified non-timber forest products [16] from the Ponga Silva Gisborne Forests.

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

11. Future Planning

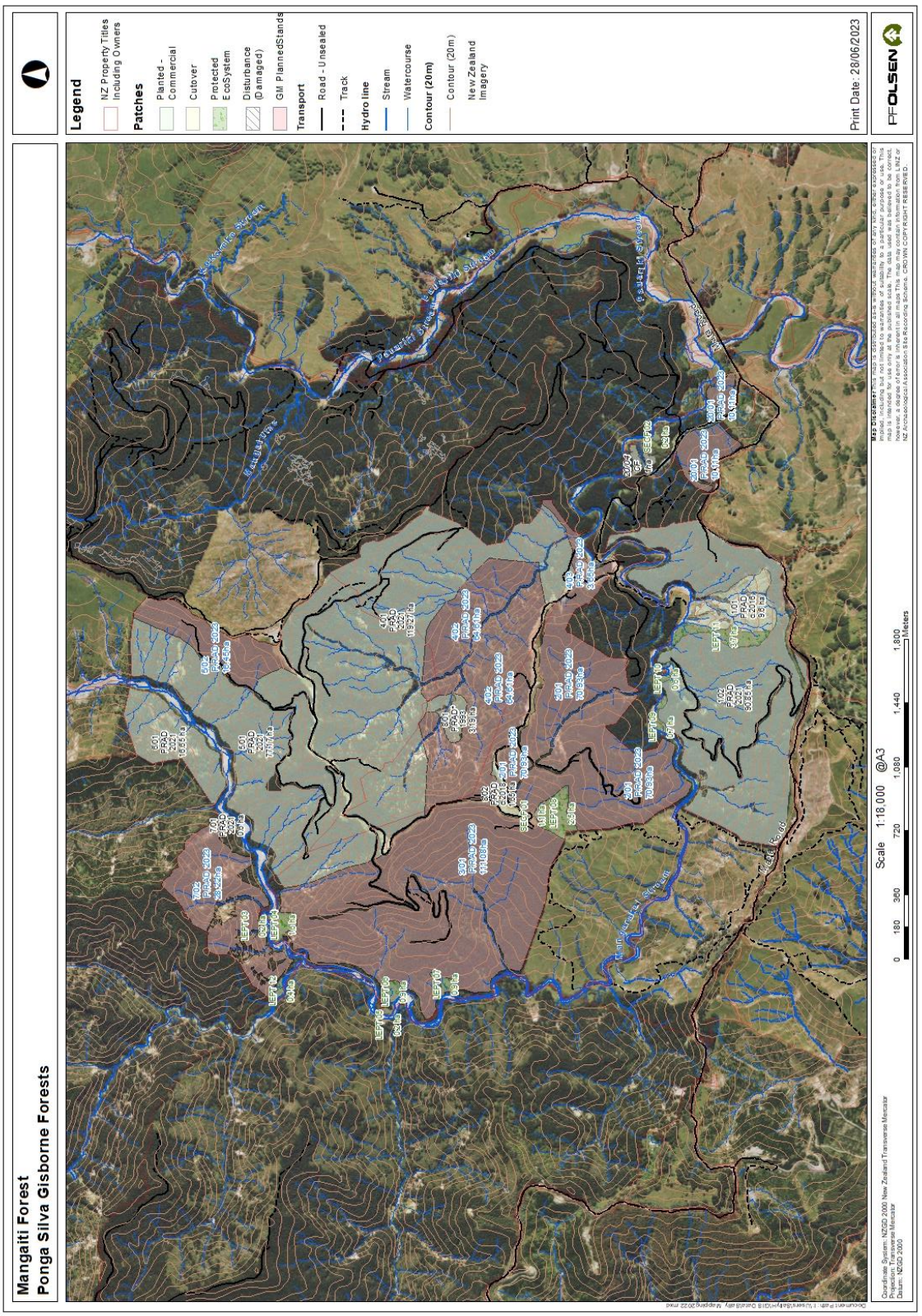
Plan changes & reviews

The next major review date for this plan is 2028 (5 years).

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

Change	Date	Section/Page
Revised some dates in the Ecological Workplan owing to the later certification of the forests than anticipated	26/03/2024	Appendix 6
Addition of Red ESC monitoring to plan, and adjusted Appendices accordingly	12/12/2024	Page 18
Updated FSC certificate	04/06/2025	Page 4

Appendix 1: Forest Maps


Mangaiti Forest
Ponga Silva Gisborne Forests
Legend
NZ Property Titles Including Owners
Patches
Planted - Commercial
Cutover
Protected EcoSystem
Disturbance (Damaged)
GM PlannedStands
Transport
Road - Unsealed
Track
Hydro line
Stream
Watercourse
Contour (20m)
Contour (20m)
New Zealand Imagery
Print Date : 28/06/2023
Scale 1:18,000 @A3
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Coordinate System: NZGD 2000 New Zealand Transverse Mercator
Projection: Transverse Mercator
Datum: NZGD 2000
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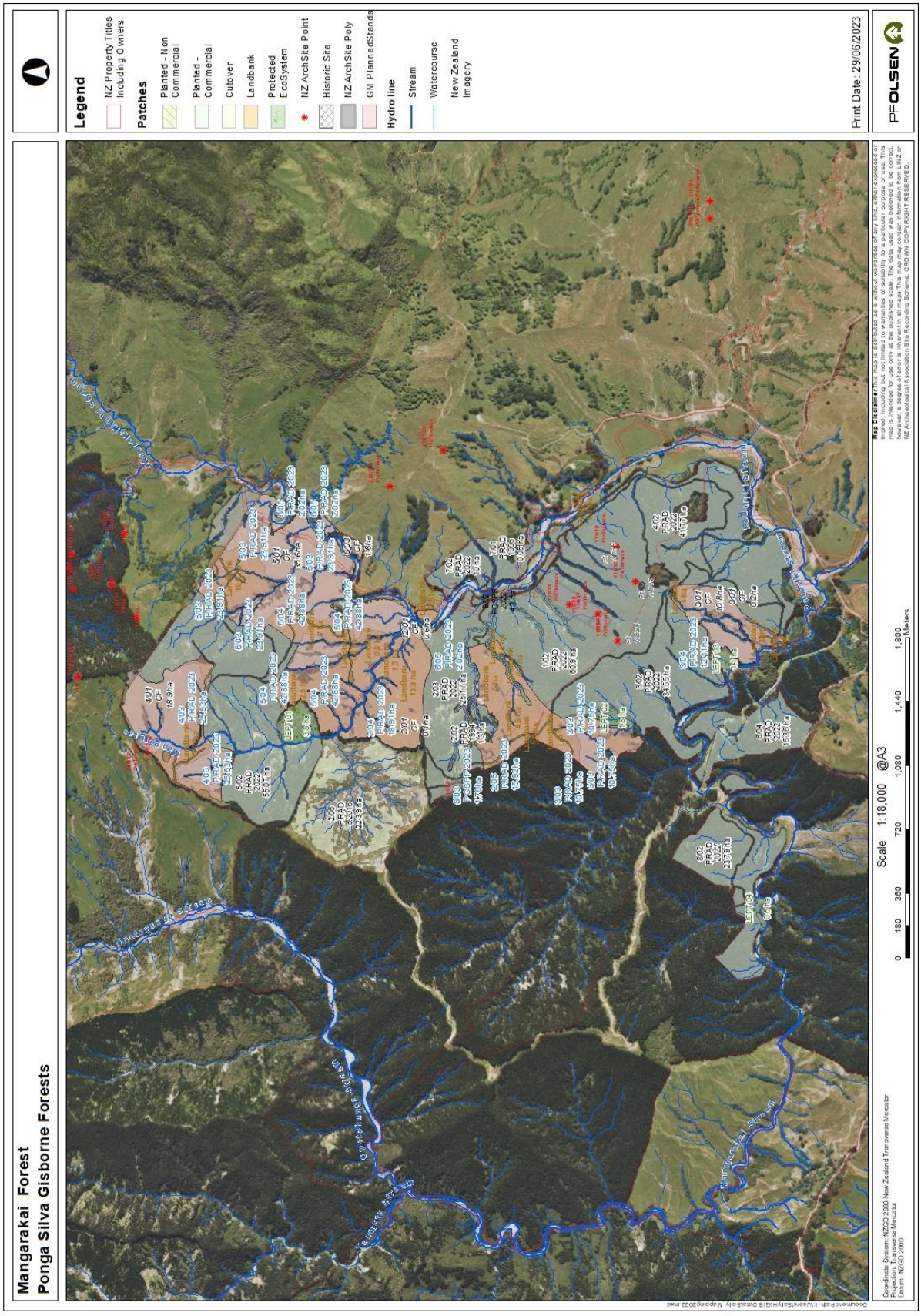
Mangarakai Forest
Ponga Silva Gisborne Forests
Legend
NZ Property Titles Including Owners
Patches
Planted - Non Commercial
Planted - Commercial
Cutover
Landbank
Protected EcoSystem
NZ ArchSite Point
Historic Site
NZ ArchSite Poly
GM PlannedStands
Hydro line
Stream
Watercourse
New Zealand Imagery
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Scale 1:18,000 @A3
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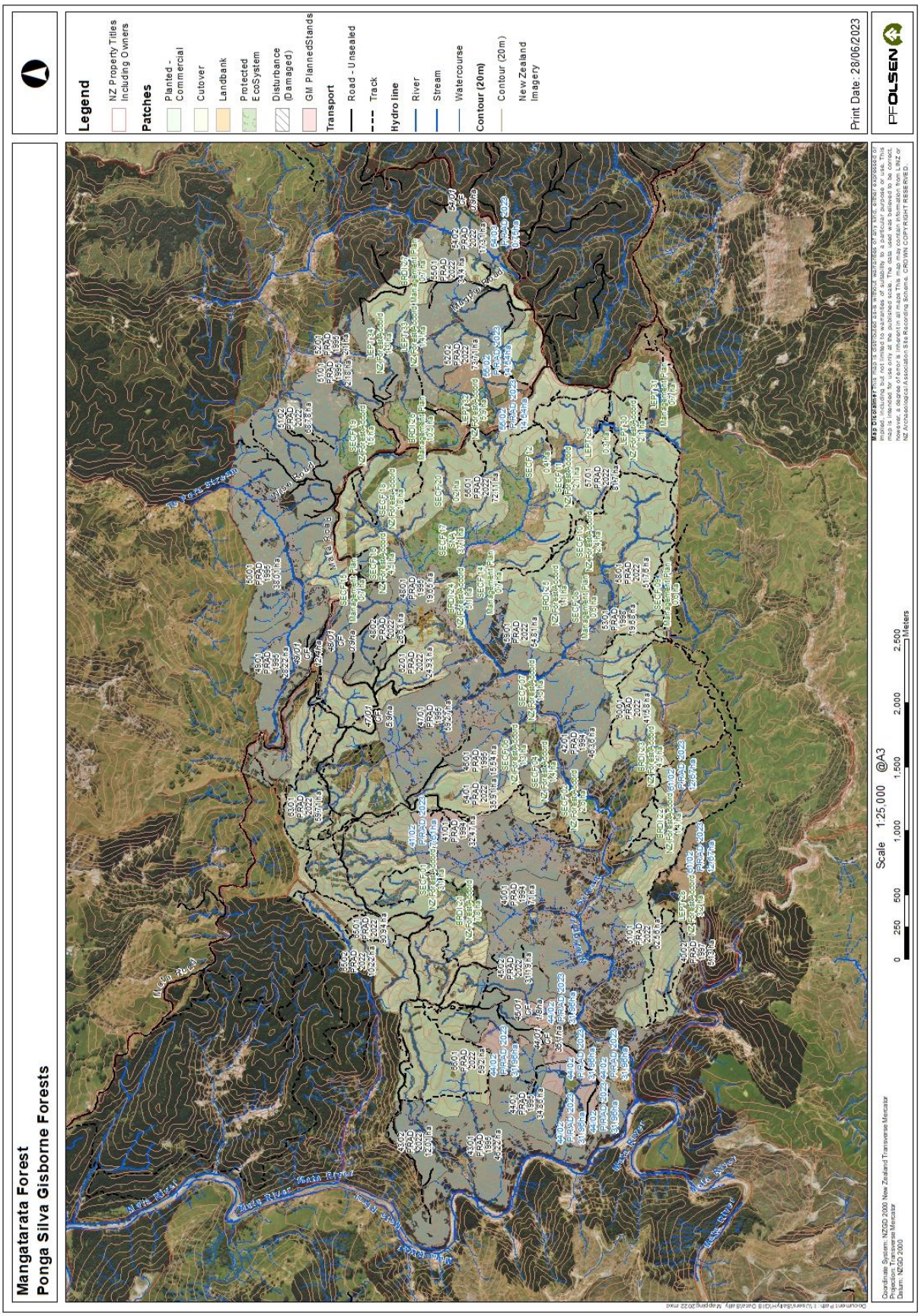
Meters
PFOLSEN


Mangatarata Forest
Ponga Silva Gisborne Forests
Legend
NZ Property Titles Including Owners
Patches
Planted - Commercial
Cutover
Landbank
Protected EcoSystem
Disturbance (Damaged)
GM PlannedStands
Transport
Road - Unsealed
Track
Hydro line
River
Stream
Watercourse
Contour (20m)
Contour (20m)
New Zealand Imagery
Print Date: 28/06/2023
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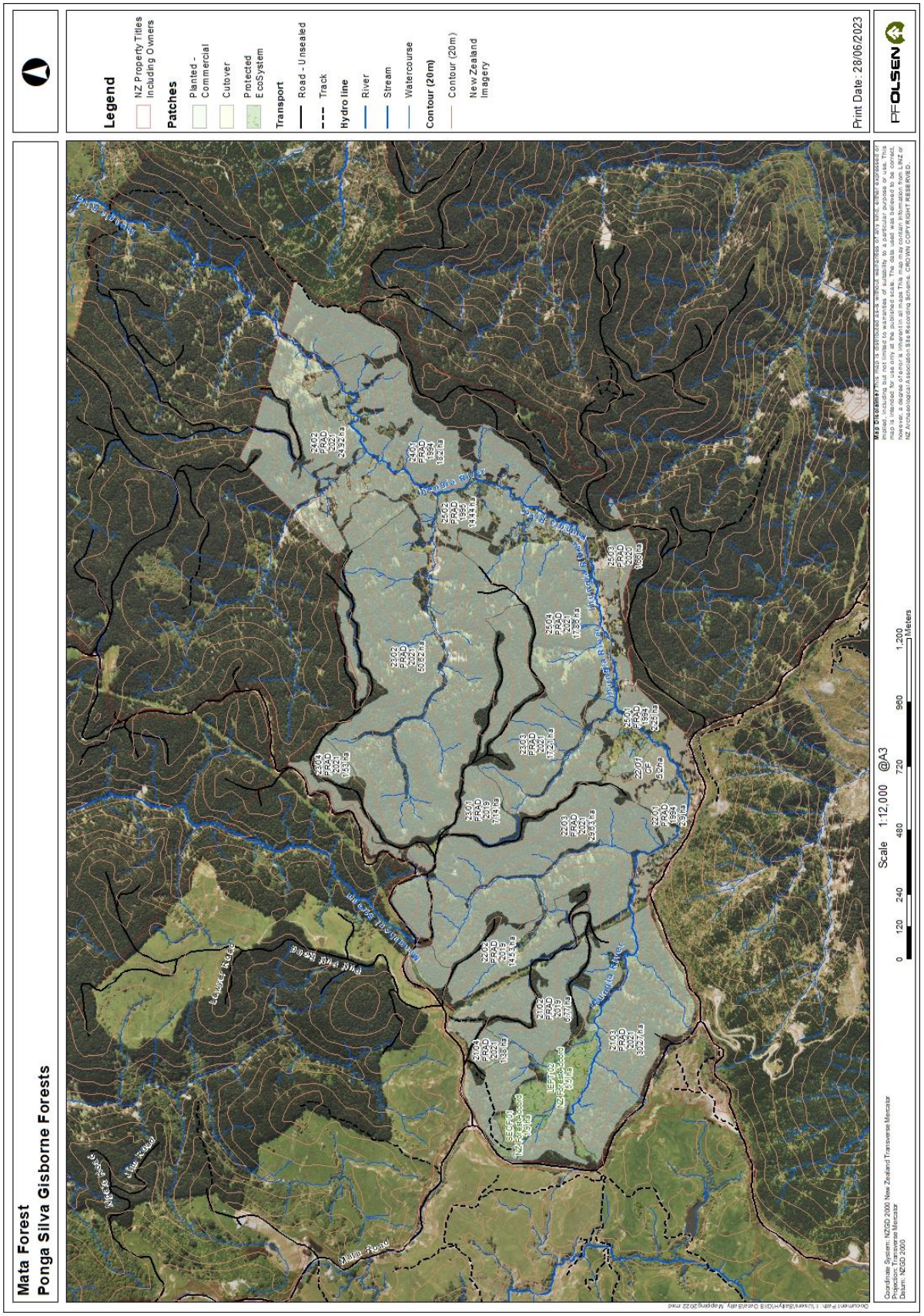
Mata Forest
Ponga Silva Gisborne Forests
Legend
NZ Property Titles Including Owners
Patches
Planted - Commercial
Cutover
Protected EcoSystem
Transport
Road - Unsealed
Track
Hydro line
River
Stream
Watercourse
Contour (20m)
Contour (20m)
New Zealand Imagery
Print Date: 28/06/2023
Scale 1:12,000 @A3
0 120 240 480 720 960 1,200 Meters
Coordinate System: NZGD 2000 New Zealand Transverse Mercator
Projection: Transverse Mercator
Datum: NZGD 2000
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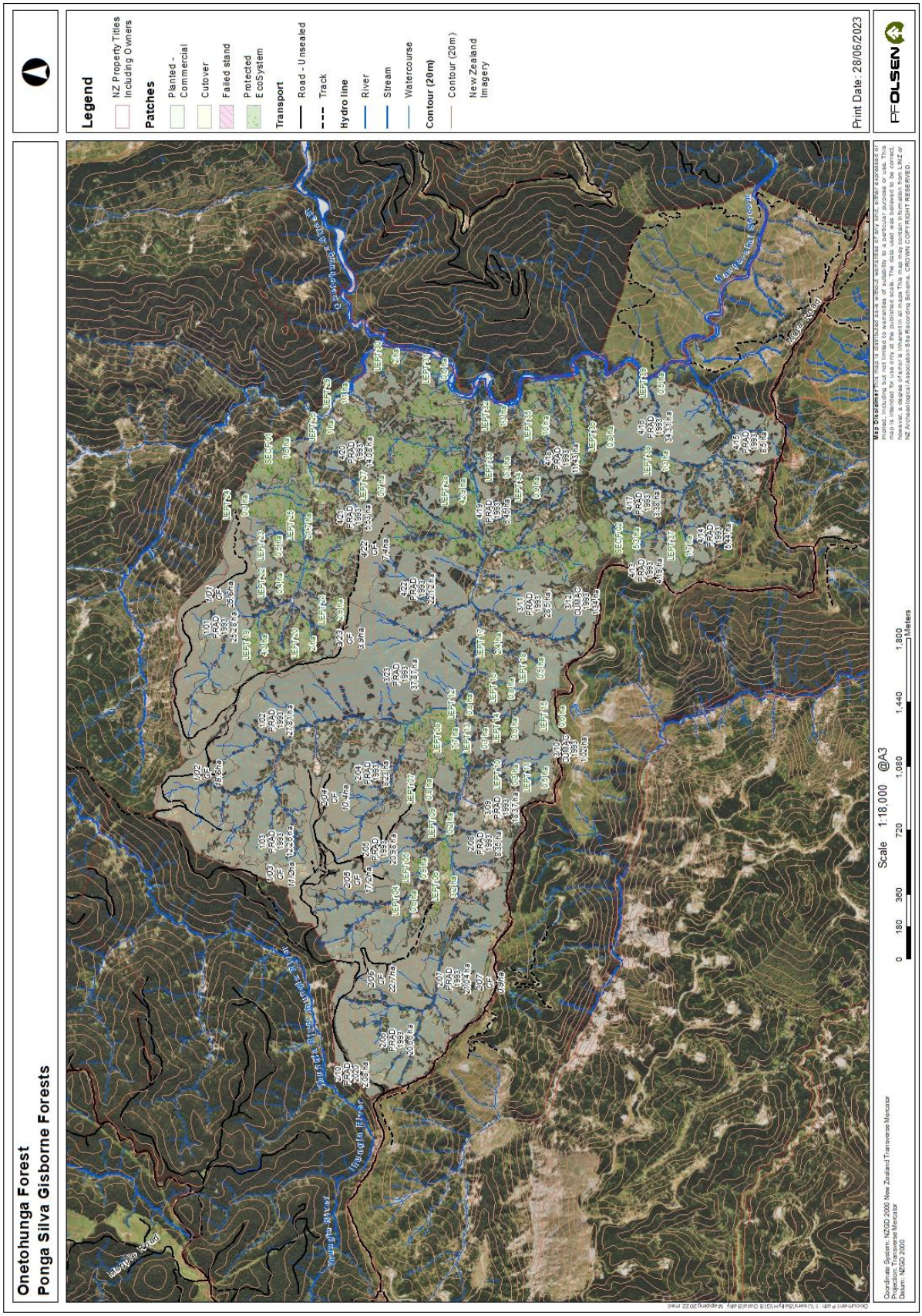
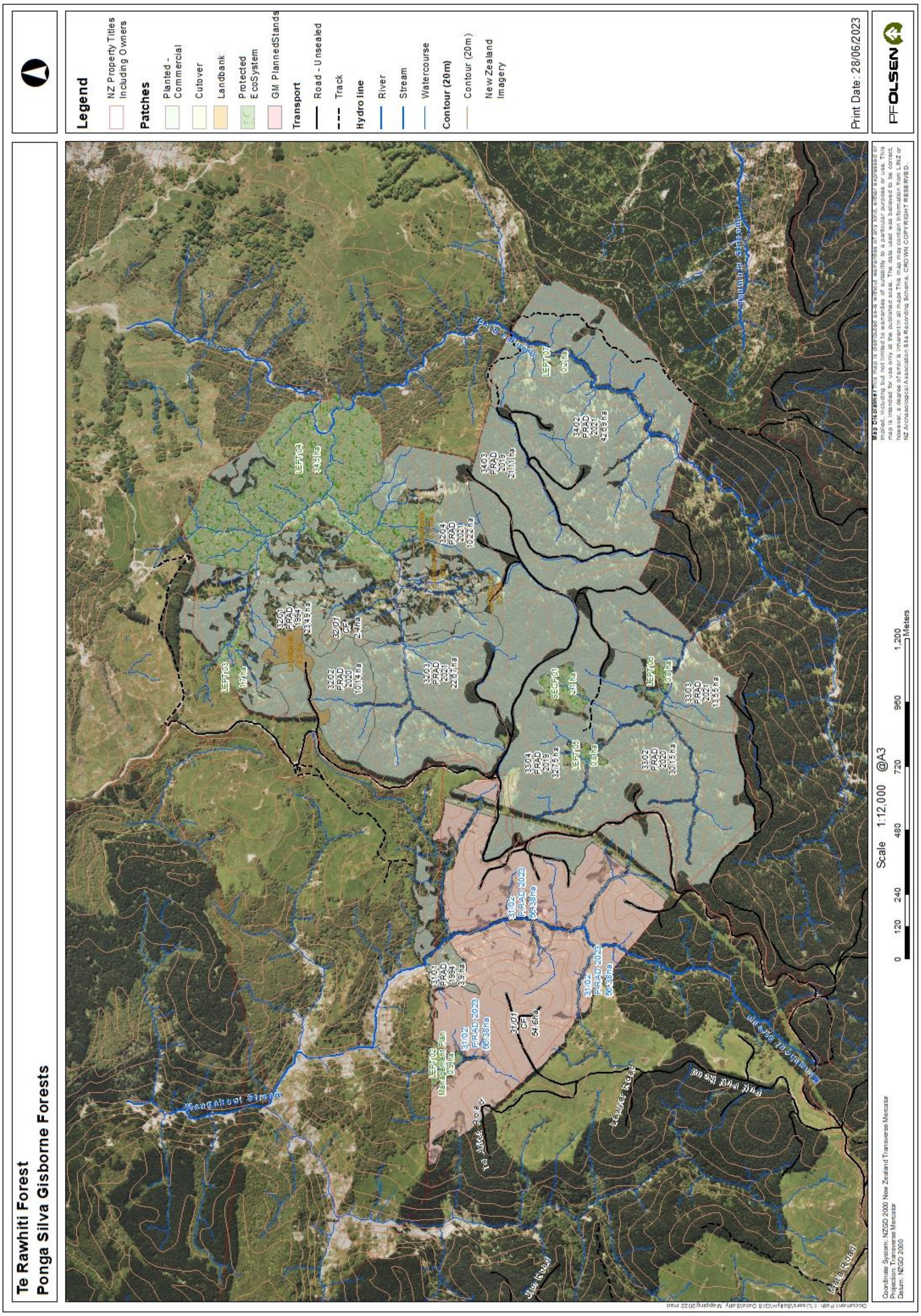

Onetohunga Forest
Ponga Silva Gisborne Forests
Legend
NZ Property Titles Including Owners
Patches
Planted - Commercial
Cutover
Failed stand
Protected EcoSystem
Transport
Road - Unsealed
Track
Hydro line
River
Stream
Watercourse
Contour (20m)
Contour (20m)
New Zealand Imagery
Print Date: 28/06/2023
PFOLSEN
Scale 1:18,000 @A3
0 180 360 720 1,080 1,440 1,800
Meters
Coordinate System: NZGD 2000 New Zealand Transverse Mercator
Projection: Transverse Mercator
Datum: NZGD 2000


Te Rawhiti Forest
Ponga Silva Gisborne Forests
Legend
NZ Property Titles Including Owners
Patches
Planted - Commercial
Cutover
Landbank
Protected EcoSystem
GM PlannedStands
Transport
Road - Unsealed
Track
Hydro line
River
Stream
Watercourse
Contour (20m)
Contour (20m)
New Zealand Imagery
Print Date: 28/06/2023
Scale 1:12,000 @A3
0 120 240 480 720 960 1,200 Meters

Appendix 2: Legal Description

Title Number	Type	Description
GS6B/800	Freehold	Fee Simple, 1/1, Lot 3, Lot 5 and Lot 7-8 Deposited Plan 8873 and Lot 6-9 Deposited Plan 9583, 3,892,786 m2
GS5D/1019	Freehold	Fee Simple, 1/1, Lot 2 Deposited Plan 8586, 3,162,060 m2
GS5D/1021	Freehold	Fee Simple, 1/1, Part Section 4 Block I Tokomaru Survey District, 7,710,222 m2
GS2C/420	Freehold	Fee Simple, 1/1, Part Lot 4 Small Grazing Run 57, 42,138 m2
GS5D/1018	Freehold	Fee Simple, 1/1, Lot 1 and Lot 5 Deposited Plan 8586, 3,516,310 m2
GS6B/525	Freehold	Fee Simple, 1/1, Lot 3 Deposited Plan 9156, 1,361,000 m2
GS6B/527	Freehold	Fee Simple, 1/1, Lot 5 Deposited Plan 9156, 321,700 m2
GS6B/524	Freehold	Fee Simple, 1/1, Lot 2 Deposited Plan 9156, 1,263,000 m2
GS6B/806	Freehold	Fee Simple, 1/1, Lot 4 and Lot 7 Deposited Plan 9156 and Lot 1 Deposited Plan 9642, 183,914 m2
GS6B/799	Freehold	Fee Simple, 1/1, Lot 2-5 Deposited Plan 9583, Lot 2 Deposited Plan 8742 and Section 1 Block VII Tokomaru Survey District, 3,561,911 m2
1165672	Freehold	Fee Simple, 1/1, Section 4 Block IV Tutamoe Survey District, 16,218,237 m2
GS6B/523	Freehold	Fee Simple, 1/1, Lot 1 Deposited Plan 9156, 2,150,000 m2
1165671	Freehold	Fee Simple, 1/1, Lot 2 Deposited Plan 599050, 3,852,354 m2

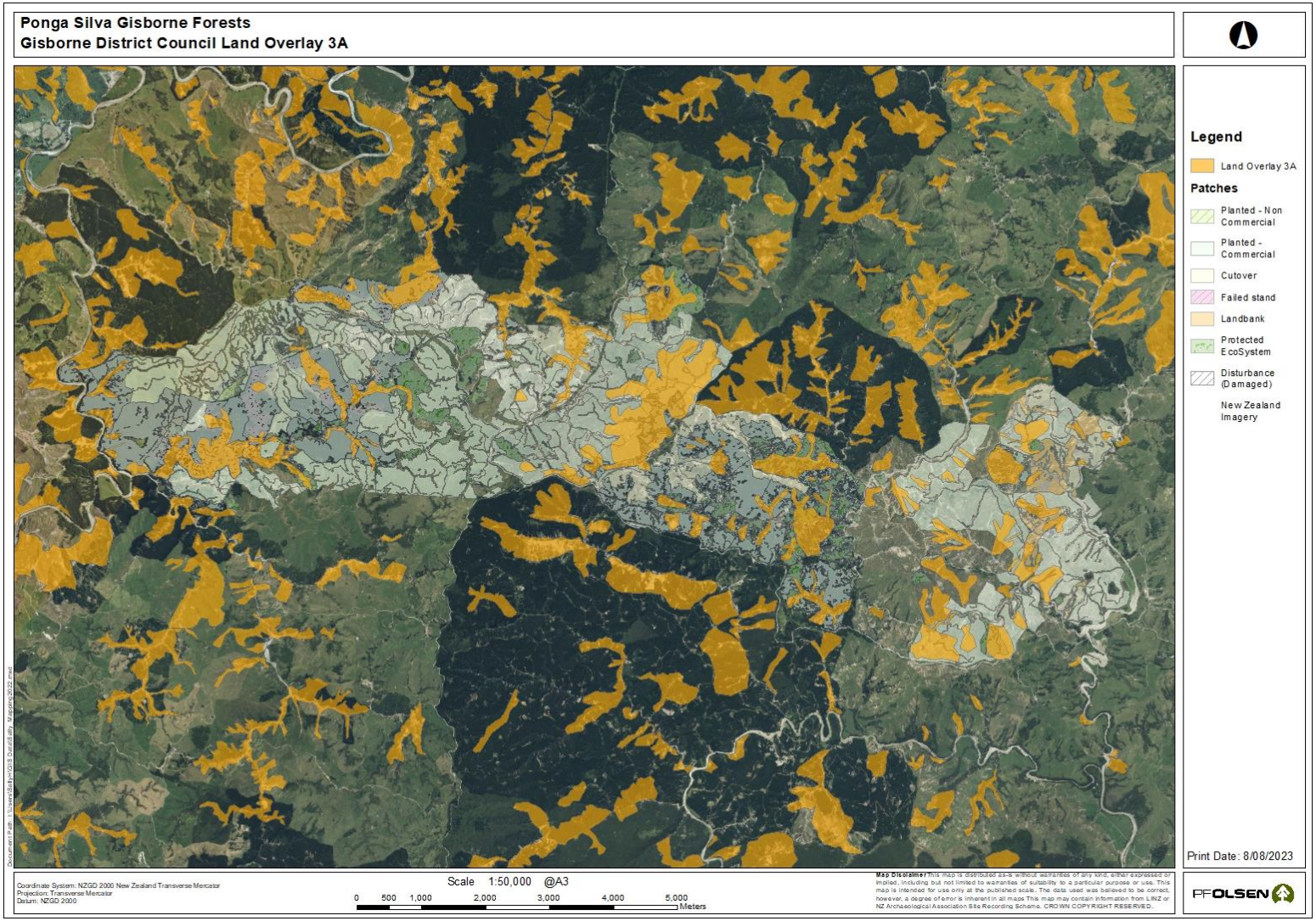
Appendix 3: Forest Neighbours

Neighbour	Activity

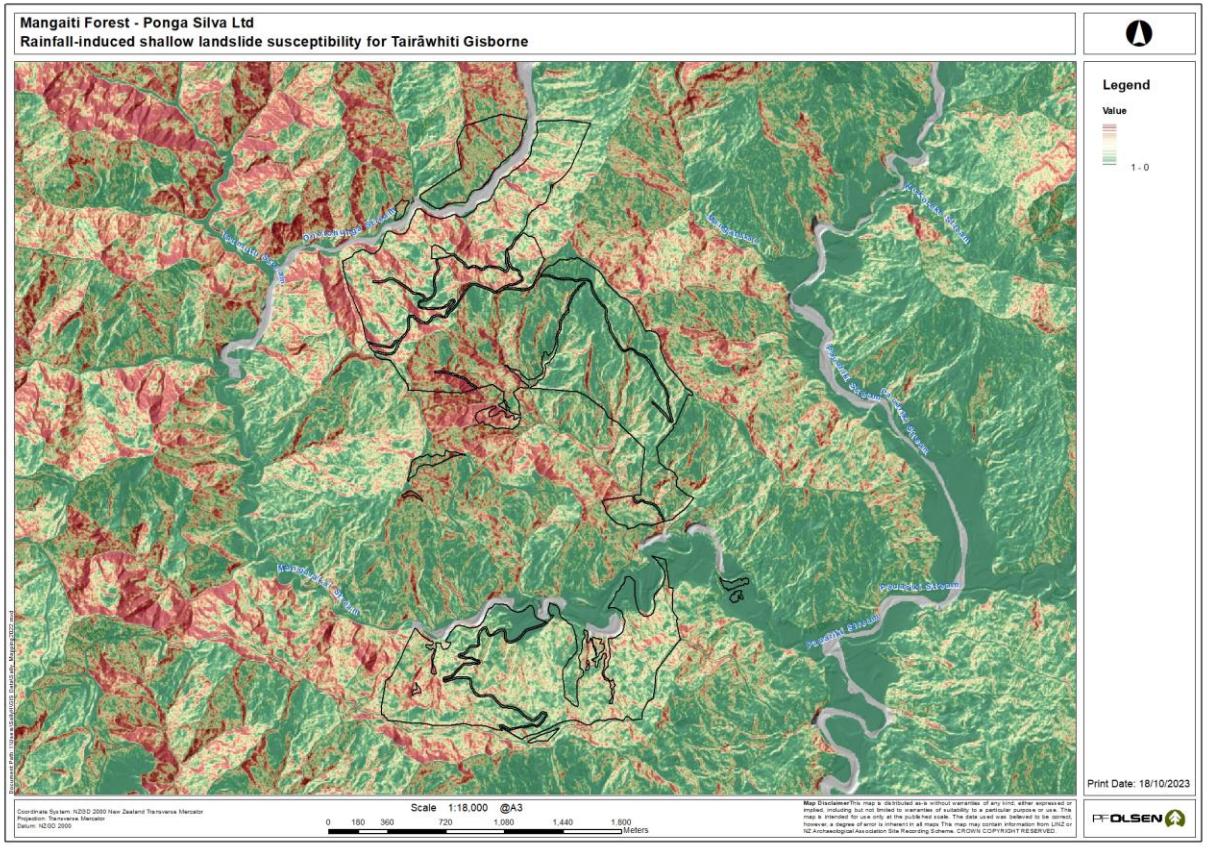
Appendix 4: Gisborne District Council rules & planning maps

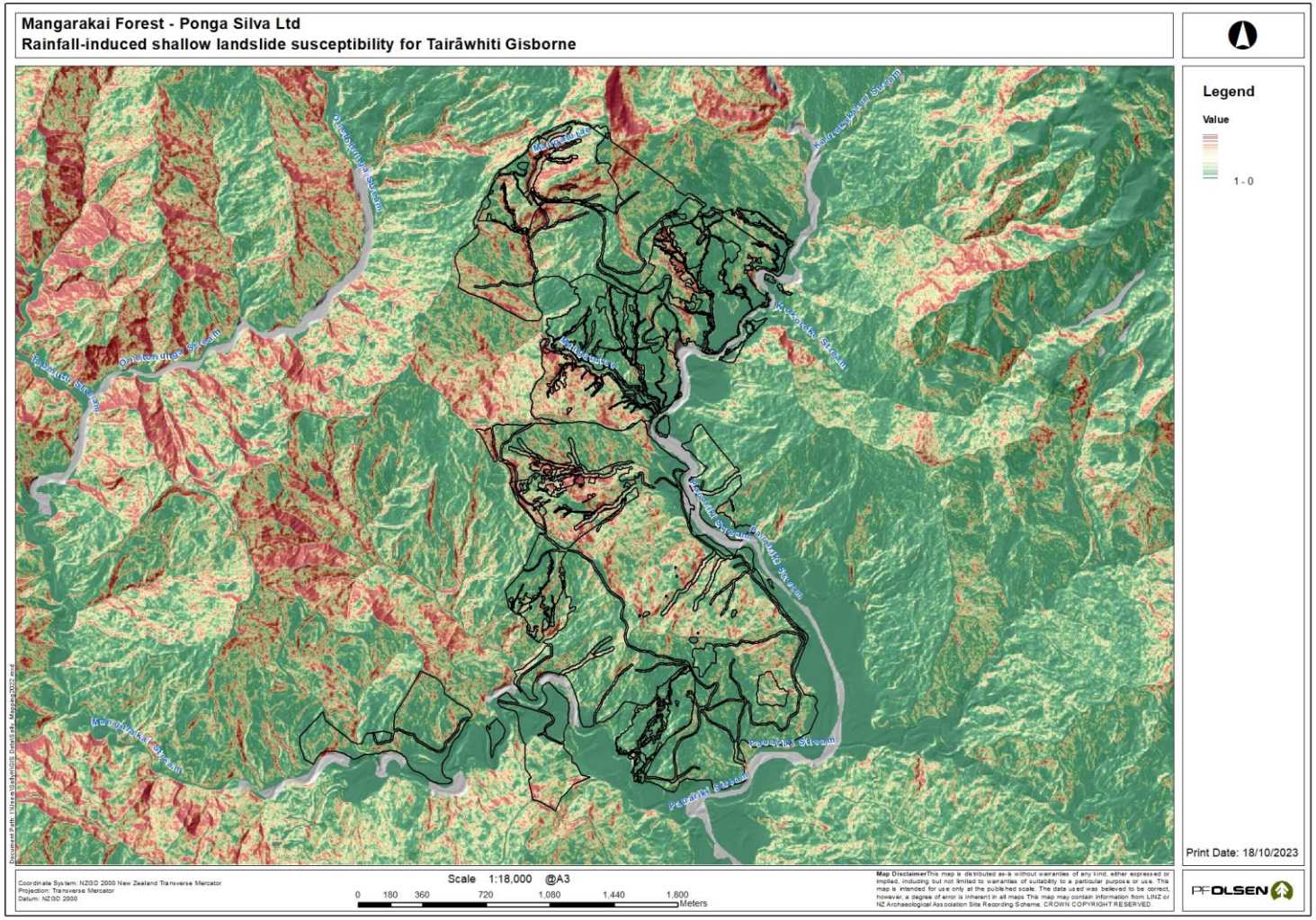
Subject Area	NES-CF Activity	Rule ID	Status	Rule	Activity Standards - Matters of Control or Discretion
Land disturbance on Land Overlay 3A	All activities	7.1.6(33) *	Permitted	Any activity, where the total area of LO3A land, on any single rating unit, is 5 hectares or more	a) The activity complies with and any more restrictive rules in respect of Land Overlay 3, where applicable: b) The activity complies with Specific C7.1.6.2 above (Sustainable Hill Country Project Works Plan)
	All activities	7.1.6(34) *	Discretionary	Any activity, where the total area of LO3A land on any single rating unit is 5 hectares or more, which is not in accordance with a certified SHCP Works Plan, or which disestablishes, or fails to maintain, certified works	In regard to any establishment Works (including establishment Works proposed in a Works Plan), the ECFP incentive exists.
	All activities	7.1.6(35)*	Discretionary		

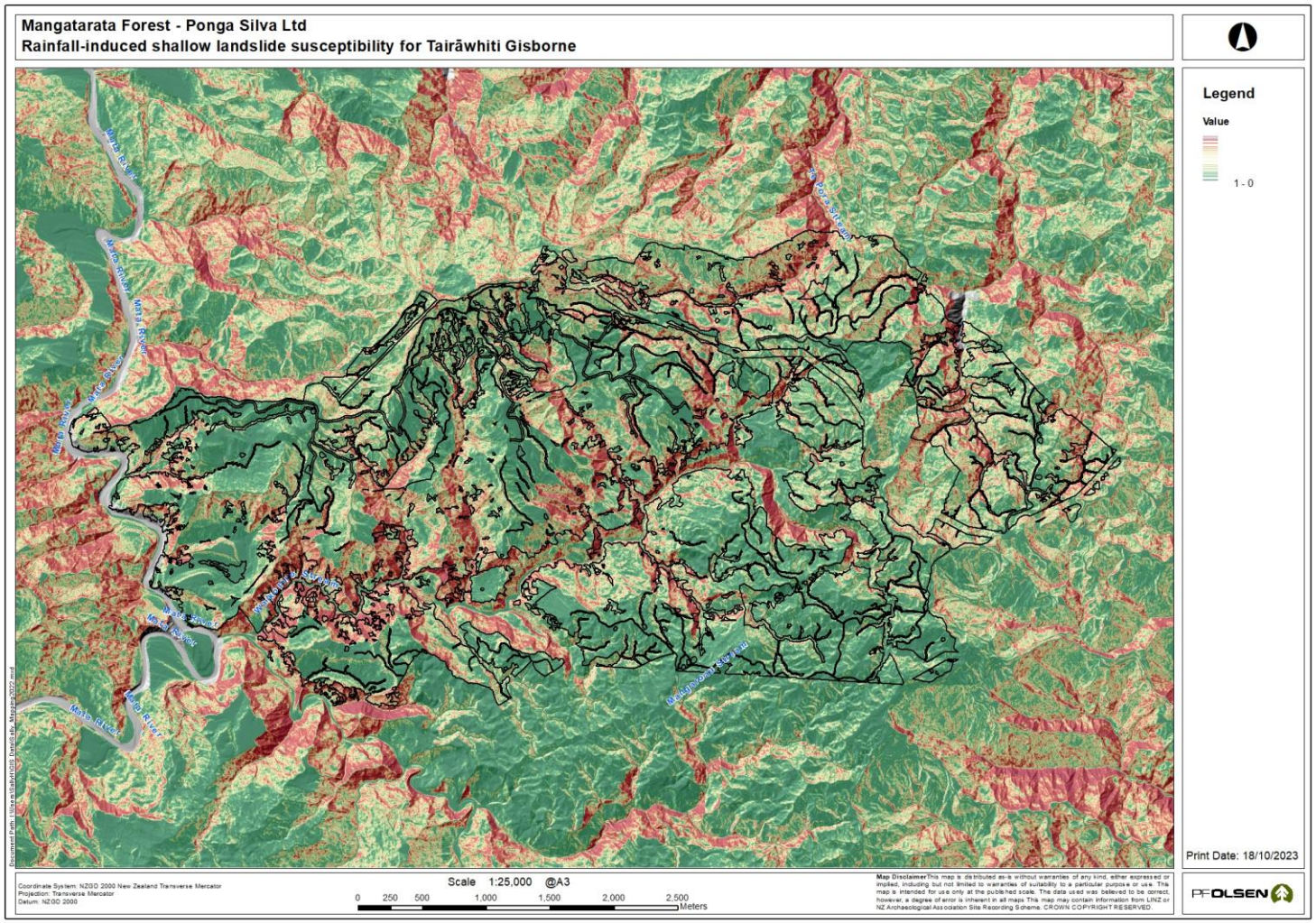
*Note: this rule applies to plantation forestry activities regulated under the NES-CF Regulations 2023.

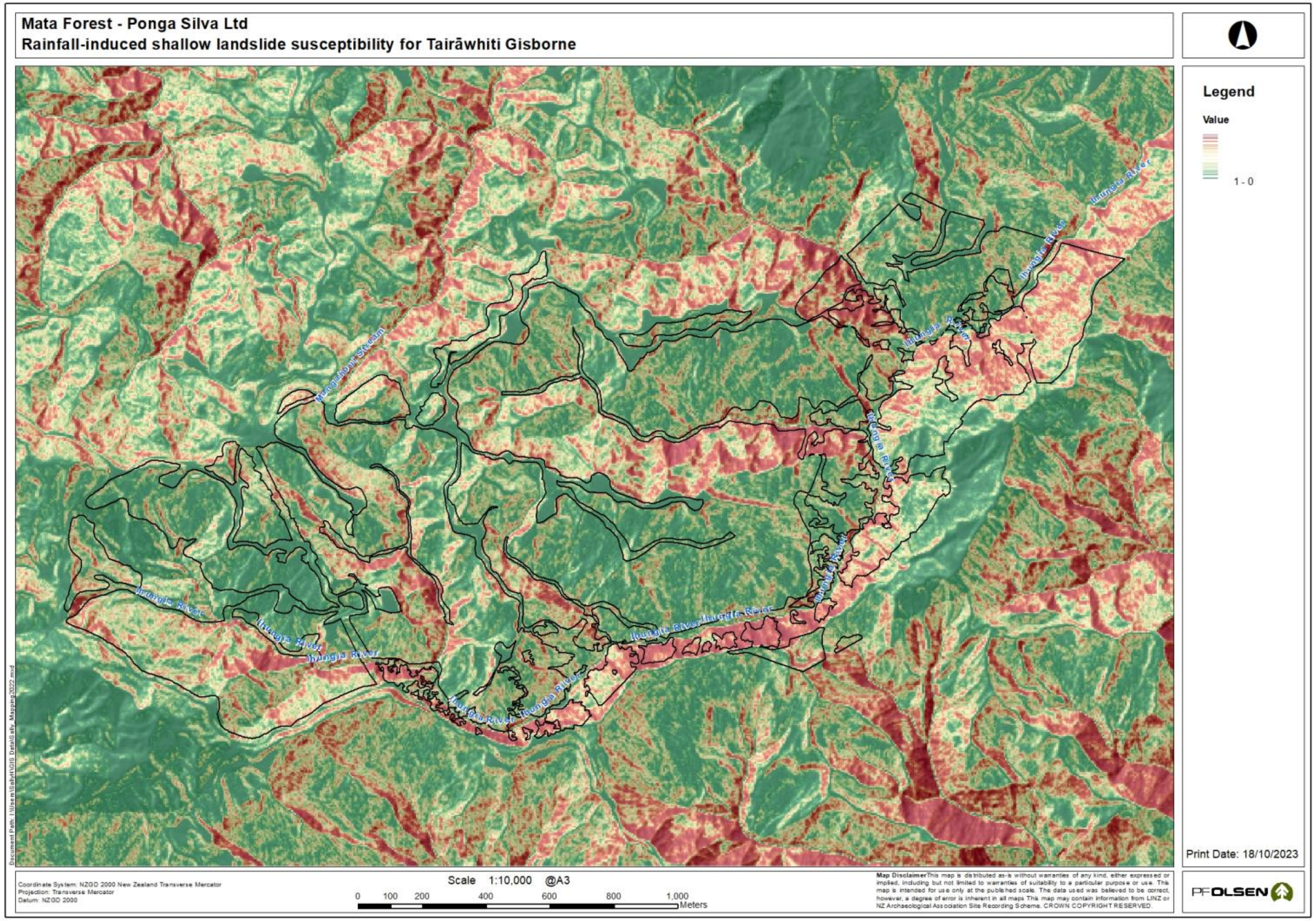

Ponga Silva Gisborne Forests
Gisborne District Council Land Overlay 3A
Legend
Land Overlay 3A
Patches
Planted - Non Commercial
Planted - Commercial
Cutover
Failed stand
Landbank
Protected EcoSystem
Disturbance (Damaged)
New Zealand Imagery
Print Date: 8/08/2023
Coordinate System: NZGD 2000 New Zealand Transverse Mercator
Projection: Transverse Mercator
Datum: NZGD 2000
Scale 1:50,000 @A3
0 500 1,000 2,000 3,000 4,000 5,000
Meters
Map Disclaimer: This map is distributed as-is without warranties of any kind, either expressed or implied, including but not limited to warranties of suitability to a particular purpose or use. This map is intended for use only at the published scale. The data used was believed to be correct, however, a degree of error is inherent in all maps This map may contain information from LINZ or NZ Archaeological Association Site Recording Scheme. CROWN COPYRIGHT RESERVED.

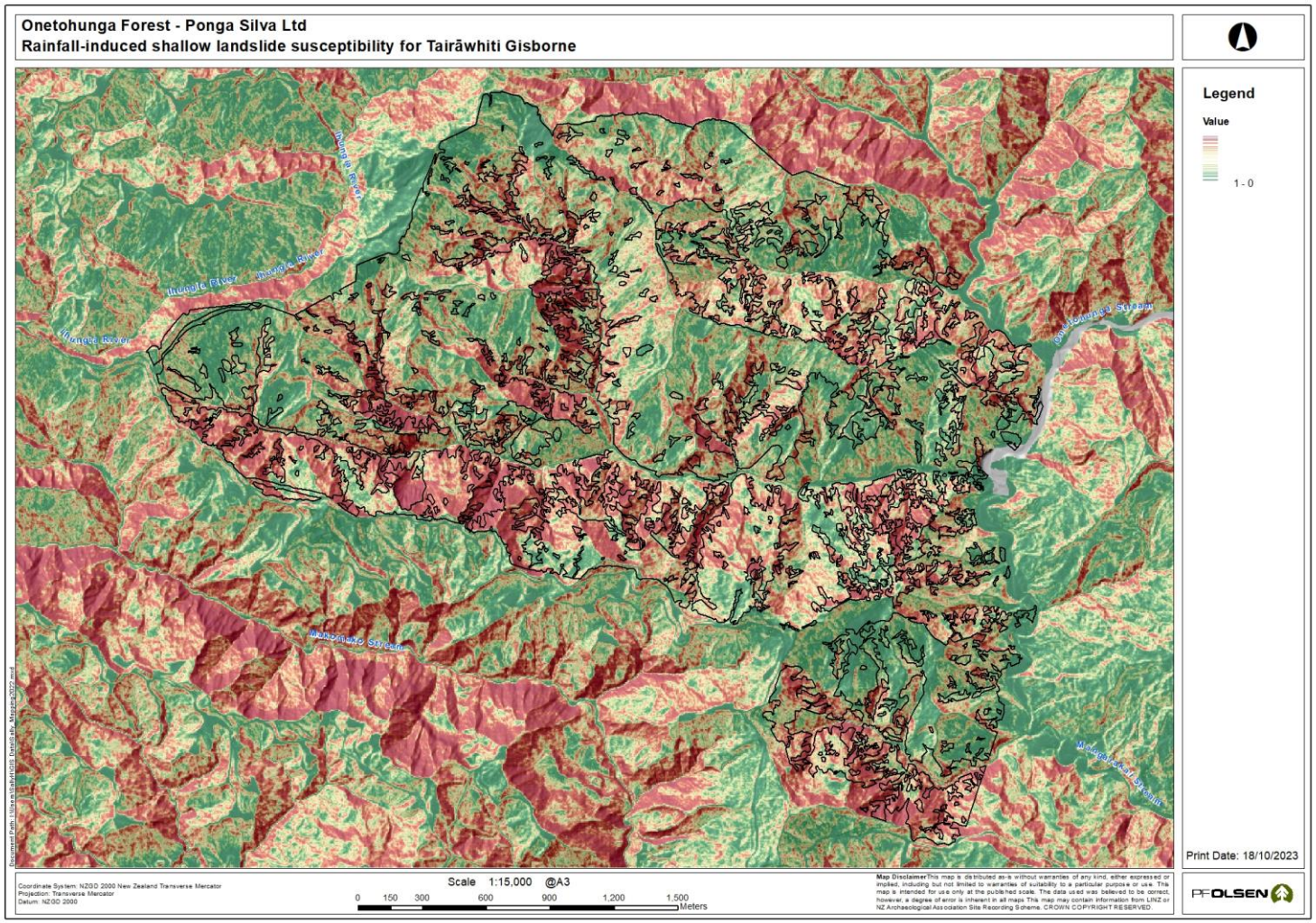
Appendix 5: Rainfall-induced shallow landslide susceptibility maps

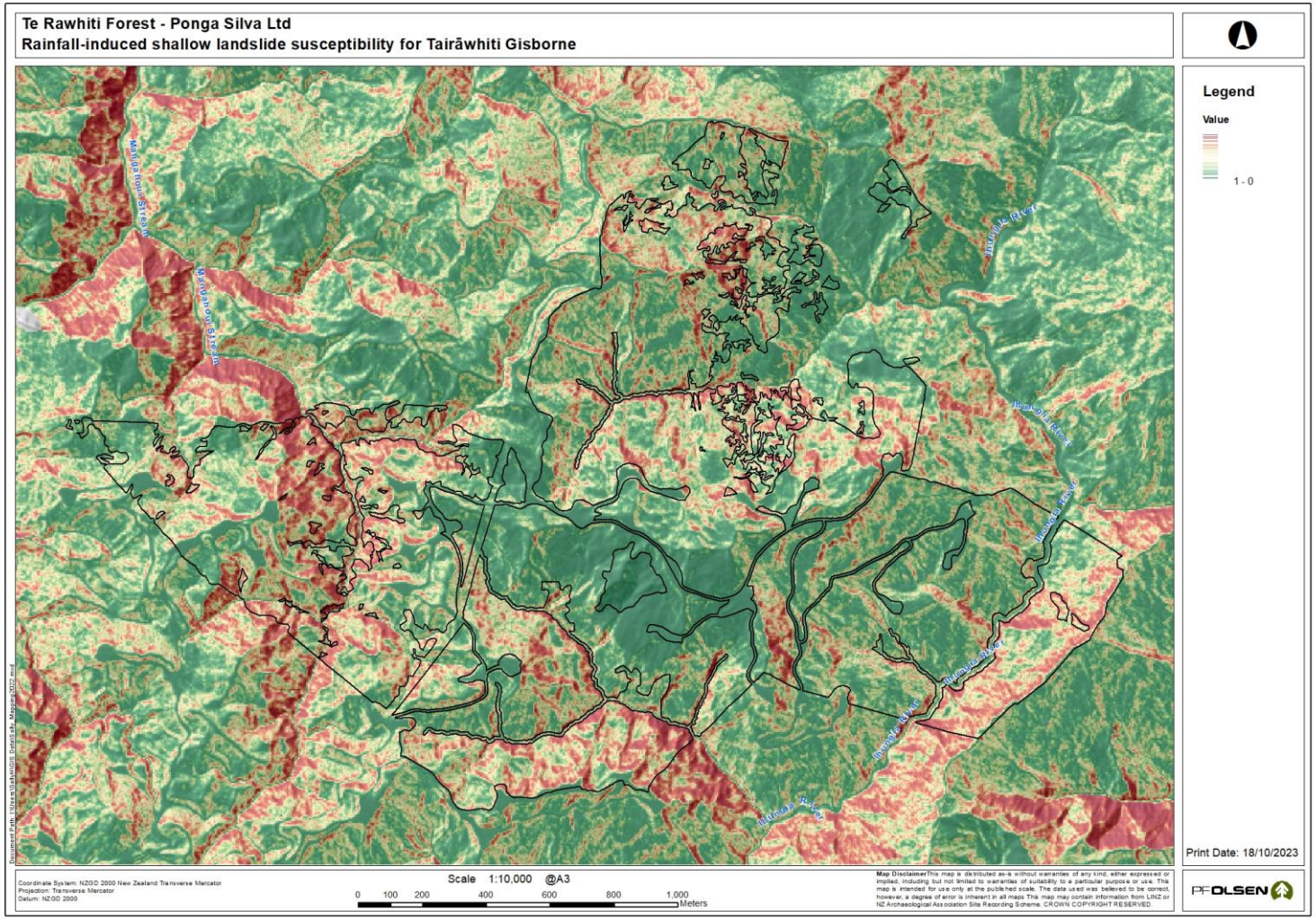



Mangarakai Forest - Ponga Silva Ltd
Rainfall-induced shallow landslide susceptibility for Tairāwhiti Gisborne
Legend
Value
1 - 0
Print Date: 18/10/2023
Scale 1:18,000 @A3
0 180 360 720 1,080 1,440 1,800
Meters
Coordinate System: NZGD 2000 New Zealand Transverse Mercator
Projection: Transverse Mercator
Datum: NZGD 2000
Map Disclaimer This map is distributed as-is without warranties of any kind, either expressed or implied, including but not limited to warranties of suitability to a particular purpose or use. This map is intended for use only at the published scale. The data used was believed to be correct, however, a degree of error is inherent in all maps This map may contain information from LINZ or NZ Archaeological Association Site Recording Scheme. CROWN COPYRIGHT RESERVED.


Mangatarata Forest - Ponga Silva Ltd
Rainfall-induced shallow landslide susceptibility for Tairāwhiti Gisborne
Legend
Value
1 - 0
Print Date: 18/10/2023
Scale 1:25,000 @A3
0 250 500 1,000 1,500 2,000 2,500
Meters
Coordinate System: NZGD 2000 New Zealand Transverse Mercator
Projection: Transverse Mercator
Datum: NZGD 2000
Map DisclaimerThis map is distributed as-is without warranties of any kind, either expressed or implied, including but not limited to warranties of suitability to a particular purpose or use. This map is intended for use only at the published scale. The data used was believed to be correct, however, a degree of error is inherent in all maps This map may contain information from LINZ or NZ Archaeological Association Site Recording Scheme. CROWN COPYRIGHT RESERVED.
PFOLSEN


Mata Forest - Ponga Silva Ltd
Rainfall-induced shallow landslide susceptibility for Tairāwhiti Gisborne
Legend
Value
1 - 0
Print Date: 18/10/2023
Coordinate System: NZGD 2000 New Zealand Transverse Mercator
Projection: Transverse Mercator
Datum: NZGD 2000
Scale 1:10,000 @A3
0 100 200 400 600 800 1,000 Meters
Map Disclaimer This map is distributed as-is without warranties of any kind, either expressed or implied, including but not limited to warranties of suitability to a particular purpose or use. This map is intended for use only at the published scale. The data used was believed to be correct, however, a degree of error is inherent in all maps This map may contain information from LINZ or NZ Archaeological Association Site Recording Scheme. CROWN COPYRIGHT RESERVED.
PFOLSEN


Onetohunga Forest - Ponga Silva Ltd
Rainfall-induced shallow landslide susceptibility for Tairāwhiti Gisborne
Legend
Value
1 - 0
Print Date: 18/10/2023
Scale 1:15,000 @A3
0 150 300 600 900 1,200 1,500
Meters
Coordinate System: NZGD 2000 New Zealand Transverse Mercator
Projection: Transverse Mercator
Datum: NZGD 2000
Map DisclaimerThis map is distributed as-is without warranties of any kind, either expressed or implied, including but not limited to warranties of suitability to a particular purpose or use. This map is intended for use only at the published scale. The data used was believed to be correct, however, a degree of error is inherent in all maps This map may contain information from LINZ or NZ Archaeological Association Site Recording Scheme. CROWN COPYRIGHT RESERVED.


Te Rawhiti Forest - Ponga Silva Ltd
Rainfall-induced shallow landslide susceptibility for Tairāwhiti Gisborne
Legend
Value
1 - 0
Print Date: 18/10/2023
Scale 1:10,000 @A3
0 100 200 400 600 800 1,000
Meters
Coordinate System: NZGD 2000 New Zealand Transverse Mercator
Projection: Transverse Mercator
Datum: NZGD 2000
Map Disclaimer This map is distributed as-is without warranties of any kind, either expressed or implied, including but not limited to warranties of suitability to a particular purpose or use. This map is intended for use only at the published scale. The data used was believed to be correct, however, a degree of error is inherent in all maps This map may contain information from LINZ or NZ Archaeological Association Site Recording Scheme. CROWN COPYRIGHT RESERVED.

Appendix 6: NES-CF Red ESC Zone Monitoring

Monitoring Actions

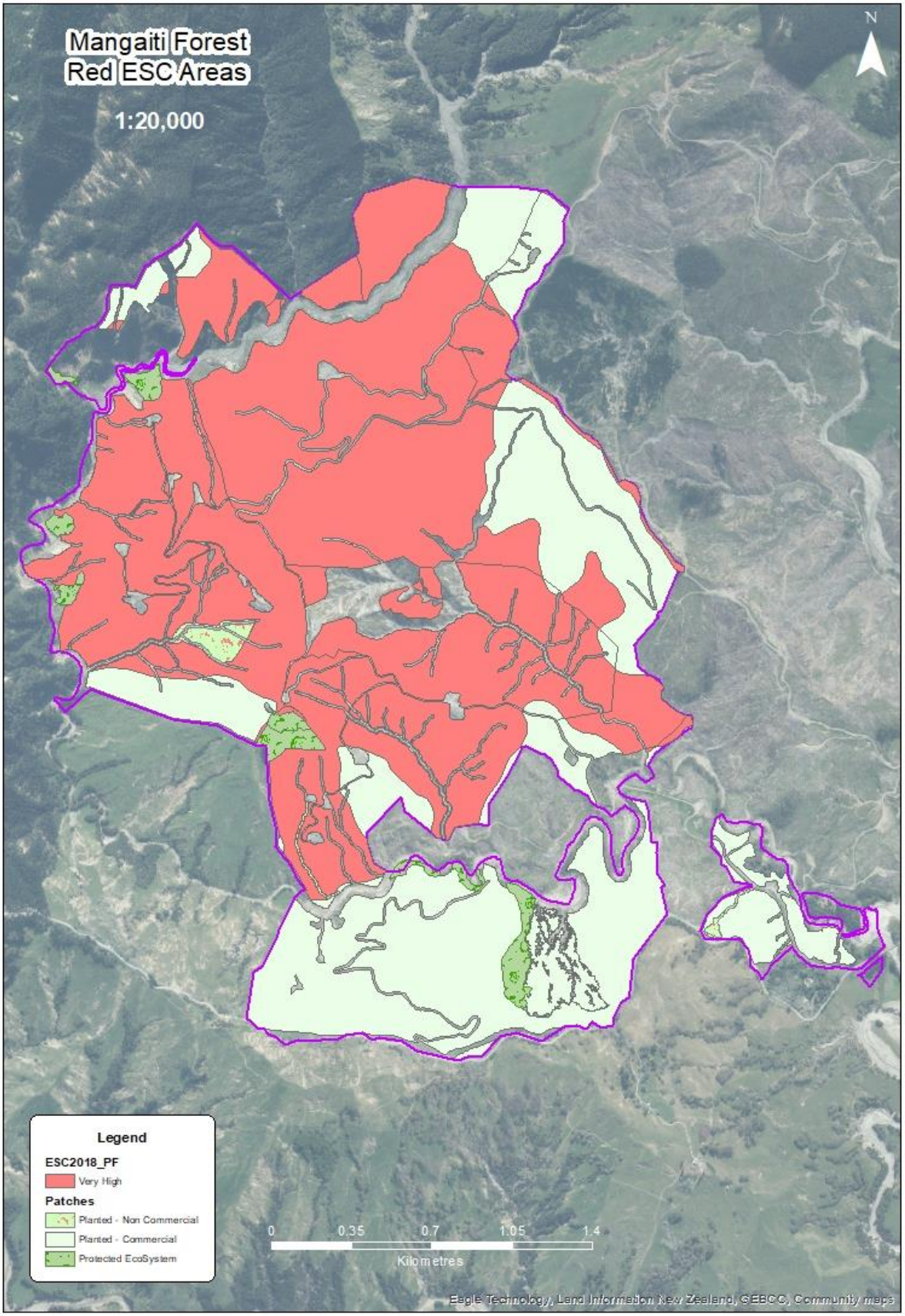
Activity Type	Actions
Monitoring of Red ESC Areas	• Orbica monitoring system - Take monthly satellite imagery of the identified Red ESC areas within the forest. - Analyse the imagery to determine levels of erosion and revegetation. • Using the PF Olsen Red ESC monitoring web tool we will: - Document the extent of any erosion and/or revegetation. - Determine if sediment has or will reach any water body. - Take any practicable appropriate steps to disconnect any sediment pathways to water bodies and minimise exacerbation of the erosion where feasible. • Harvesting erosion - Harvest managers will be aware of Red Zone areas that are being harvested and will follow NES-CF permitted activity regulations OR resource consent conditions. - Prior to harvesting commencing the harvest manger will determine if harvesting activities are likely to result in sediment reaching water bodies, and which water bodies will be affected. All practicable steps will be taken to disconnect harvesting disturbance from water bodies.

Stands to be monitored by forest

Mangaiti Forest

The current total productive area of Mangaiti Forest is 579.0 hectares. Of its current total productive area 64.0% is Red ESC class.

Stand	Area of Red ESC within the Stand (ha)	Total Stand Area (ha)	Percentage of Stand Affected
MGTI-02-01	52.56	66.78	79%
MGTI-03-01	86.35	99.36	87%
MGTI-04-01	71.66	119.27	60%
MGTI-04-02	45.49	47.35	96%
MGTI-04-03	0.59	0.91	65%
MGTI-05-01	67.44	77.16	87%
MGTI-05-02	7.53	15.41	49%
MGTI-06-01	16.65	16.65	100%
MGTI-07-01	0.60	0.60	100%
MGTI-07-02	11.54	17.08	68%
MGTI-08-01	3.18	3.19	100%
MGTI-08-02	1.65	1.65	100%
MGTI-08-03	0.26	0.26	100%
Total Area	**365.50**	**465.67**	

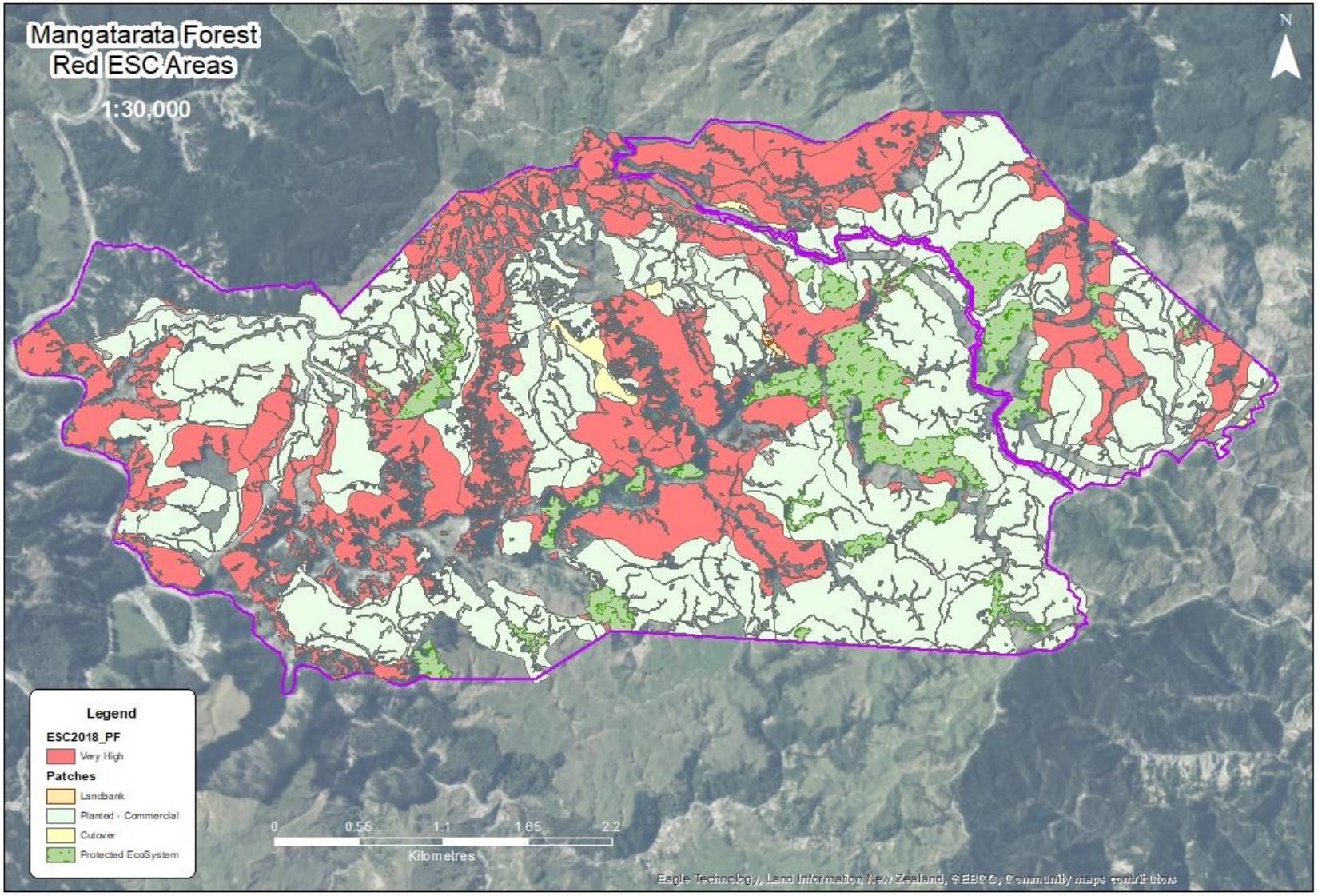

Mangaiti Forest
Red ESC Areas
1:20,000
N
Legend
ESC2018_PF
Very High
Patches
Planted - Non Commercial
Planted - Commercial
Protected EcoSystem
0
0.35
0.7
1.05
1.4
Kilometres
Eagle Technology, Land Information New Zealand, GEBCO, Community maps

Mangatarata Forest

The current total productive area of Mangatarata Forest is 1,371.1 hectares. Of its current total productive area 38% is Red ESC class.

Stand	Area of Red ESC within the Stand (ha)	Total Stand Area (ha)	Percentage of Stand Affected
MNTA-40-01	56.98	71.00	80%
MNTA-40-02	4.71	5.12	92%
MNTA-41-01	24.15	32.40	75%
MNTA-41-02	0.88	7.54	12%
MNTA-42-01	35.33	46.36	76%
MNTA-43-01	32.95	46.22	71%
MNTA-43-02	1.18	11.14	11%
MNTA-44-01	22.47	34.86	64%
MNTA-44-02	12.08	28.51	42%
MNTA-45-02	8.37	31.18	27%
MNTA-46-01	14.59	19.07	76%
MNTA-47-01	50.99	65.14	78%
MNTA-48-01	15.65	20.51	76%
MNTA-48-02	10.88	26.39	41%
MNTA-49-01	38.83	40.63	96%
MNTA-50-01	37.15	38.26	97%
MNTA-51-01	2.17	2.18	100%
MNTA-51-02	8.80	68.29	13%
MNTA-52-01	2.06	2.10	98%
MNTA-52-02	33.57	73.99	45%
MNTA-53-01	15.63	19.68	79%
MNTA-54-02	9.44	17.38	54%
MNTA-55-01	2.87	33.43	9%
MNTA-55-02	1.85	13.84	13%
MNTA-56-01	3.93	71.90	5%

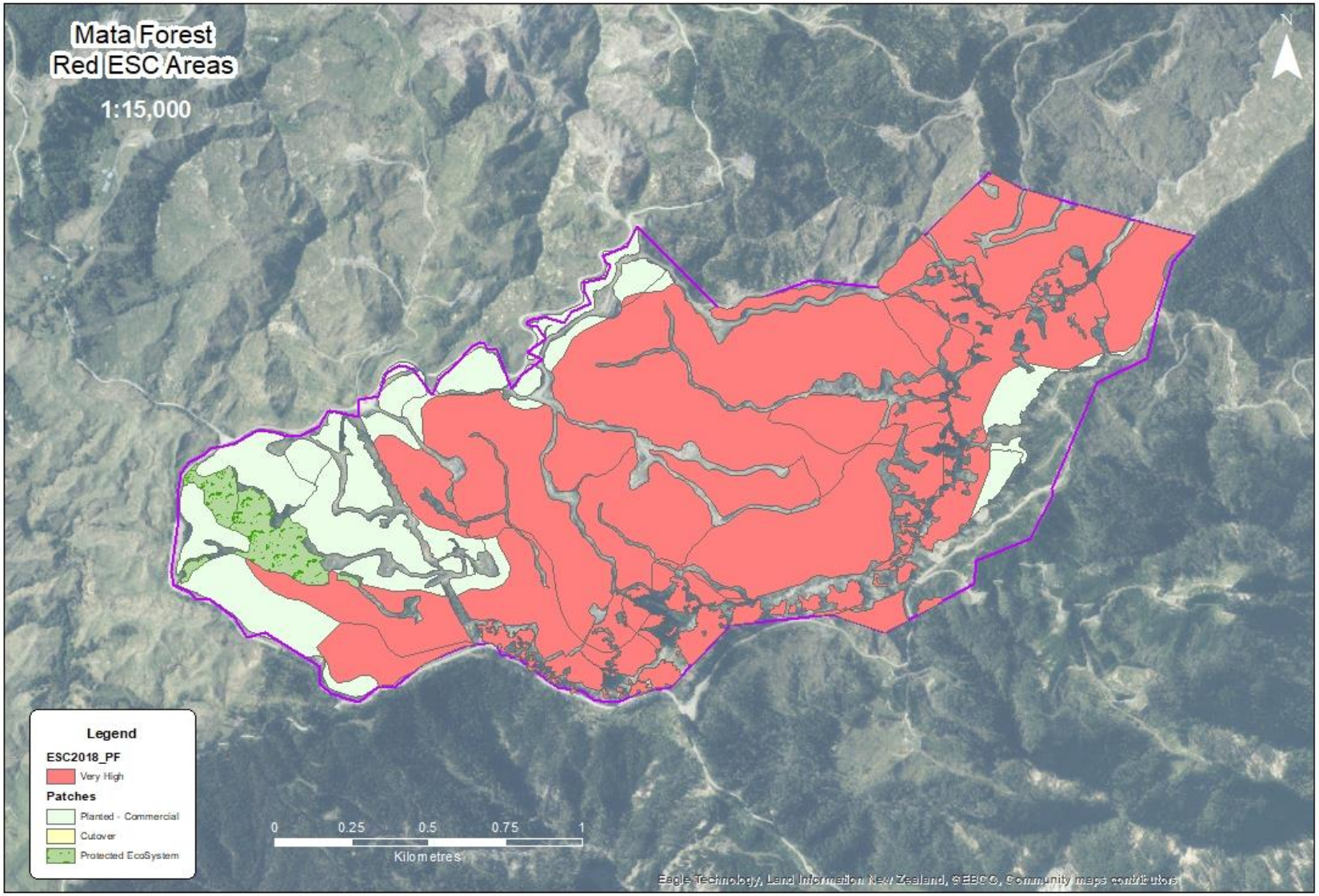
Stand	Area of Red ESC within the Stand (ha)	Total Stand Area (ha)	Percentage of Stand Affected
MNTA-57-01	0.21	80.00	0%
MNTA-58-01	0.81	51.08	2%
MNTA-59-01	5.74	55.06	10%
MNTA-60-01	0.75	40.82	2%
MNTA-61-01	1.07	59.51	2%
MNTA-62-01	3.74	22.81	16%
MNTA-63-01	28.43	56.18	51%
MNTA-64-01	4.14	33.22	12%
MNTA-65-01	30.06	84.45	36%
MNTA-66-01	1.09	56.22	2%
Total area	**523.53**	**1,366.48**	


Mangatarata Forest
Red ESC Areas
1:30,000
N
Legend
ESC2018_PF
Very High
Patches
Landbank
Planted - Commercial
Cutover
Protected EcoSystem
0
0.55
1.1
1.65
2.2
Kilometres
Eagle Technology, Land Information New Zealand, ©EBC©, Community maps contributors

Mata Forest

The current total productive area of Mata Forest is 246.5 hectares. Of its current total productive area 80% is Red ESC class.

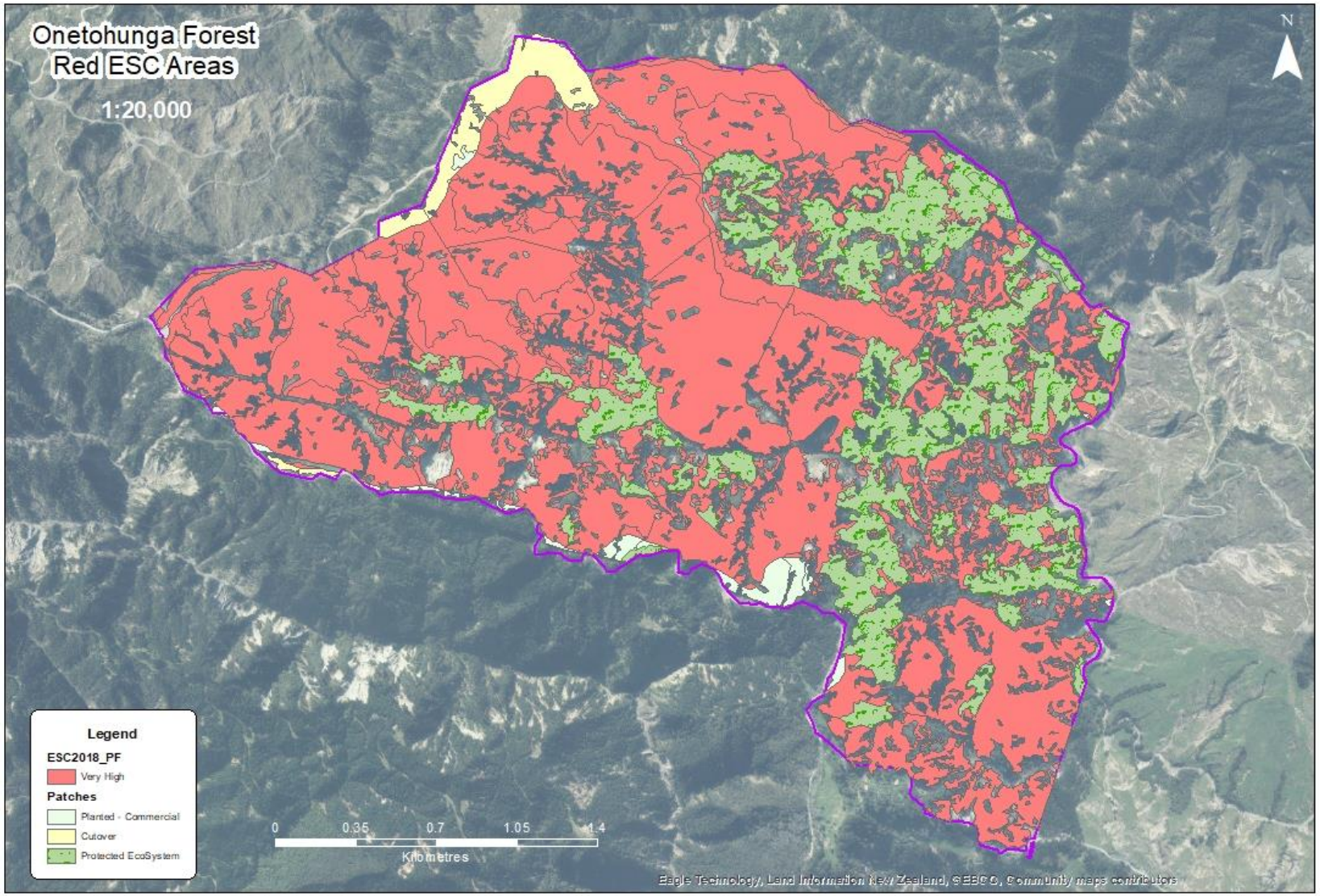
Stand	Area of Red ESC within the Stand (ha)	Total Stand Area (ha)	Percentage of Stand Affected
MATA-21-03	12.83	30.27	42%
MATA-22-01	8.12	8.12	100%
MATA-22-02	4.52	14.52	31%
MATA-22-03	27.24	29.63	92%
MATA-23-01	4.22	7.14	59%
MATA-23-02	49.28	50.61	97%
MATA-23-03	17.21	17.21	100%
MATA-23-04	0.13	1.53	8%
MATA-24-01	14.95	18.19	82%
MATA-24-02	24.80	24.92	100%
MATA-25-01	2.24	2.24	100%
MATA-25-02	13.03	14.46	90%
MATA-25-03	1.66	1.66	100%
MATA-25-04	17.86	17.86	100%
Total Area	**198.10**	**238.37**	


Mata Forest
Red ESC Areas
1:15,000
N
Legend
ESC2018_PF
Very High
Patches
Planted - Commercial
Cutover
Protected EcoSystem
0
0.25
0.5
0.75
1
Kilometres
Eagle Technology, Land Information New Zealand, ©EBC©, Community maps contributors

Onetohunga Forest

The current total productive area of Onetohunga Forest is 467.3 hectares. Of its current total productive area 95% is Red ESC class.

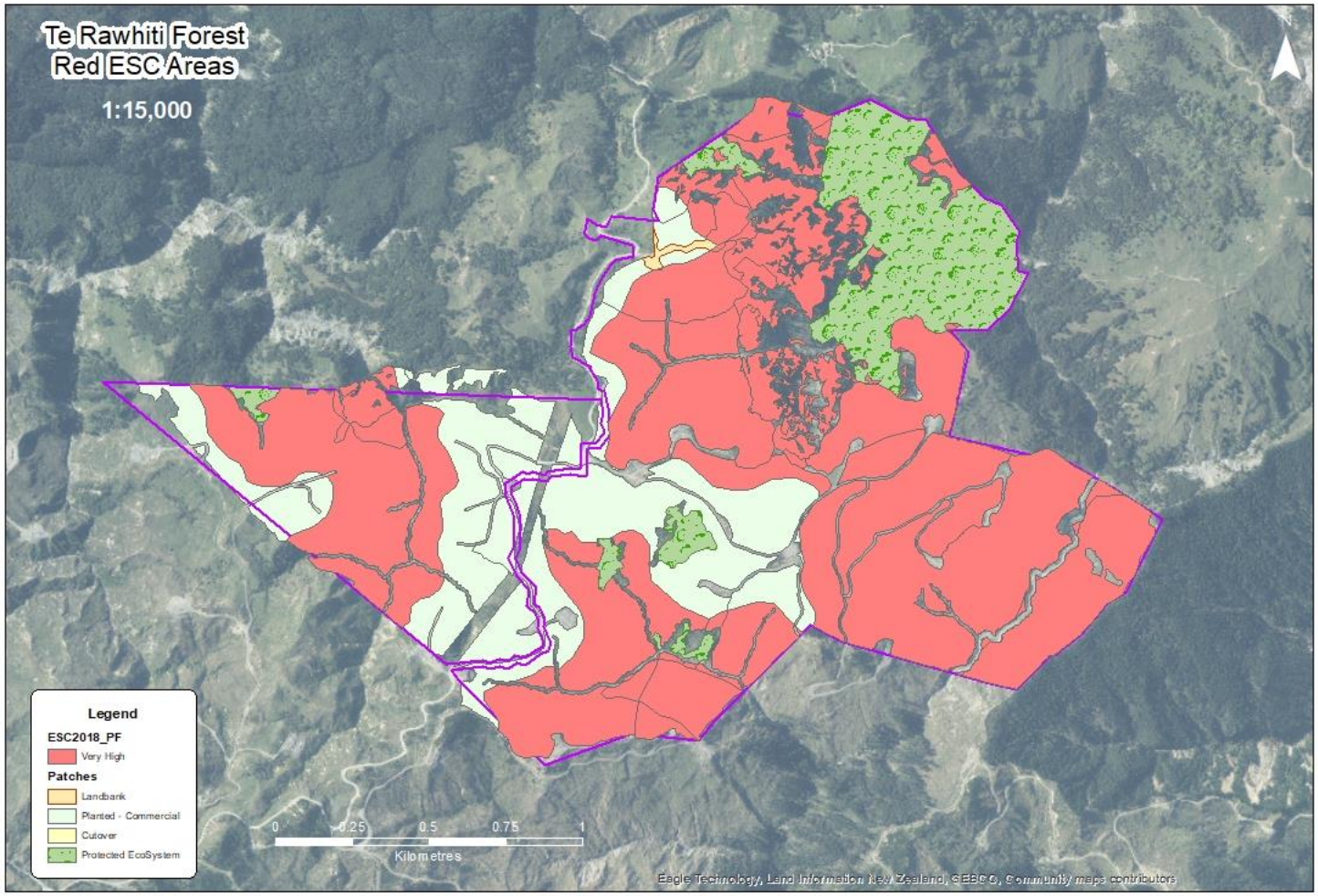
Stand	Area of Red ESC within the Stand (ha)	Total Stand Area (ha)	Percentage of Stand Affected
ONET-01-01	50.89	50.89	100%
ONET-01-02	37.13	46.44	80%
ONET-01-03	18.81	23.43	80%
ONET-02-04	18.61	18.61	100%
ONET-02-05	36.69	38.2	96%
ONET-02-06	43.40	43.38	100%
ONET-02-07	20.25	21.99	92%
ONET-02-08	8.15	8.35	98%
ONET-02-10	2.08	2.08	100%
ONET-03-09	17.63	18.37	96%
ONET-03-10	0.31	1.02	31%
ONET-03-11	25.24	28.5	89%
ONET-03-12	0.12	1.34	9%
ONET-03-23	41.76	41.76	100%
ONET-04-13	3.69	4.19	88%
ONET-04-14	5.45	5.44	100%
ONET-04-15	8.50	8.5	100%
ONET-04-16	34.23	34.31	100%
ONET-04-17	3.38	3.38	100%
ONET-04-18	11.35	11.43	99%
ONET-04-19	6.45	6.45	100%
ONET-04-20	14.05	14.08	100%
ONET-04-21	5.54	5.53	100%
ONET-04-22	29.54	29.55	100%
Total Area	**443.25**	**467.22**	


Onetohunga Forest
Red ESC Areas
1:20,000
N
Legend
ESC2018_PF
Very High
Patches
Planted - Commercial
Cutover
Protected EcoSystem
0
0.35
0.7
1.05
1.4
Kilometres
Eagle Technology, Land Information New Zealand, GEBCO, Community maps contributors

Te Rawhiti Forest

The current total productive area of Te Rawhiti Forest is 271.8 hectares. Of its current total productive area 74% is Red ESC class.

Stand	Area of Red ESC within the Stand (ha)	Total Stand Area (ha)	Percentage of Stand Affected
TRAW-31-01	2.31	3.90	59%
TRAW-31-02	32.66	56.38	58%
TRAW-32-01	24.97	25.85	97%
TRAW-32-02	9.26	12.99	71%
TRAW-32-03	19.82	22.67	87%
TRAW-32-04	10.22	10.22	100%
TRAW-33-02	18.17	30.15	60%
TRAW-33-03	11.14	13.55	82%
TRAW-33-04	8.83	32.24	27%
TRAW-34-02	42.69	42.69	100%
TRAW-34-03	20.51	21.12	97%
Total Area	**200.59**	**271.76**	


Te Rawhiti Forest
Red ESC Areas
1:15,000
Legend
ESC2018_PF
Very High
Patches
Landbank
Planted - Commercial
Cutover
Protected EcoSystem
0
0.25
0.5
0.75
1
Kilometres
Eagle Technology, Land Information New Zealand, GEBCO, Community maps contributors

Appendix 7: Ecological Workplan

Review Date:

Activity Type	Actions	Area/s	Due Date
Walk-through check / drone survey	Forest manager to do annual onsite check on issues including weeds, wilding pines, animal browse. This can be done via a combination of a walk-through check on the ground and/or use of a drone to carry out an aerial assessment of the block.	Focus on high-ranking indigenous areas within the forests	31-Dec (annually)
Bat surveys	Carry out targeted pre-harvest surveys for long-tailed bats	**Mangatarata** Western Mangatarata: MNTA-43-01 and 44-01 **Onetohunga** Northern Onetohunga: ONET-1-01, 1-02, 1-03, 4-20, 4-21	Summer 2024/25
All threatened species, including Kārearea (NZ falcon) and Pīhoihoi (NZ pipit)	Sightings to be recorded in iNaturalist. NZFOA New Zealand Falcon Management Guide: Plantation Forestry[17] is to be followed if kārearea are found within the forest boundaries.	All forests	Ongoing

[17] https://www.wingspan.co.nz/PDF/Forestry-Management-Protocols-final.pdf

Activity Type	Actions	Area/s	Due Date
Pest Control - Plants	Carry out any pest plant control based on annual walk-through check / drone survey information and in accordance with the Regional Pest Management Plan.	Focus on high-ranking indigenous areas within forests	31-Dec (annually)
	Plan and implement wilding pine control (* wilding pine, eucalypts and poplar)	**Mangatarata** BRDI-01, SECF-01, SECF-02, SECF-03, SECF-11, SECF-13, SECF-18, BRDI-23, BRDI-24, BRDI-26*, LEPT-32 Waikopiro Stream - SECF-02, SECF-04, SECF-05, SECF-06, SECF-07 SNA Waikopiro - SECF-17 **Mata** SECF-01, LEPT-02 **Onetohunga** LEPT-25, SECF-01 **Te Rawhiti** LEPT-07	Prepare plan and budget by July 2025 Commence implementation by August 2025 then 5 yearly wilding control
	Control goutweed - one patch in Mangatarata SECF-16 near Mata Rd entrance (approximately NZTM E2049081, N5770402)	**Mangatarata** SECF-16	Spring 2024
	Control ivy - one patch in Mangaiti south of SECF-02 in *Cupressus* stand (approximately NZTM E2059372, N5766042)	**Mangaiti** SECF-02	Spring 2024

Activity Type	Actions	Area/s	Due Date
Pest control - Animals	Formalise a pest control plan (an external contractor could be engaged). May include shooting, trapping and/or poisoning (with initial and ongoing Residual Trap Catch for possum density). - Goats, deer, possums – all forests - Feral horses- Onetohunga, Te Rawhiti, Mata - Feral sheep- Onetohunga, Mangarakai	Focus on high-ranking indigenous areas within forests	31-Dec (annually)
Land retirement	Review areas that are not suitable for harvest and/or replanting into a traditional plantation forest regime, either as the area is ready of harvest/replant or in advance based on regional rules and/or Ponga Silva directed intervention. Discuss and agree on alternate land management of these areas with Ponga Silva as they are identified. NB: this area includes some or all of the 55 ha required to meet the 10% reserve area indicator, as per section 3 of this plan.	All forests	Ongoing
Wetland restoration	Potential project: create a 2.1 ha wetland within Mangatarata forest. A decision on this will be made before the next major management plan review (December 2028). Prepare a proposal to create a wetland in Mangatarata forest to improve water quality, rare and threatened species habitat values.		By Dec 2028

<table>
<tr><th>Activity Type</th><th>Actions</th><th>Area/s</th><th>Due Date</th></tr>
<tr>
<td>Water eDNA tests</td>
<td>Undertake comprehensive eDNA water testing to:
- establish aquatic / amphibious / riparian terrestrial rare species presence.
- provide water quality indicator (TICI).

If threatened species are identified:

- Findings will be reported in iNaturalist
- Review forestry and harvesting operations to ensure that any potential impacts are recognised and managed appropriately to not adversely affect the threatened species (in line with the National Policy Statement for Indigenous Biodiversity).

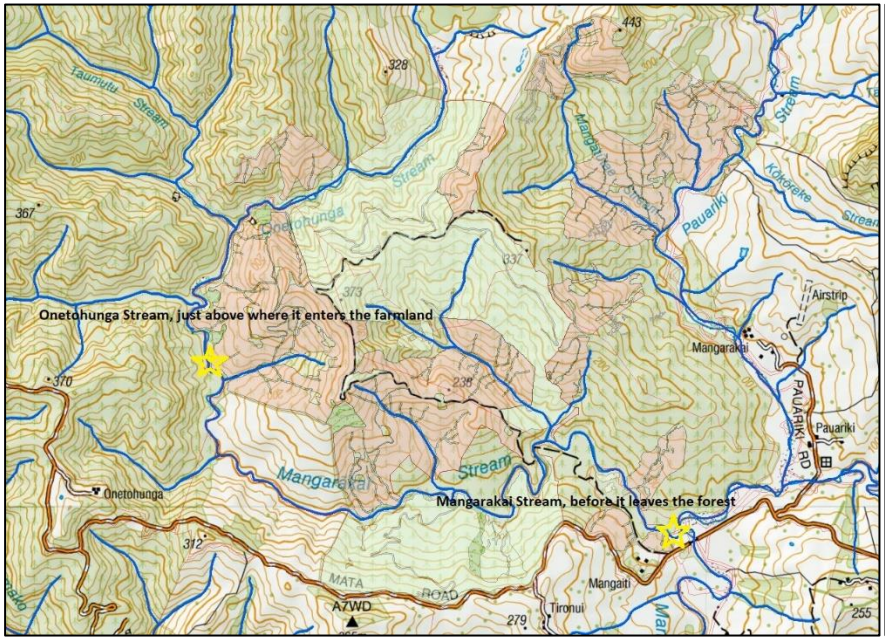
If an unexpected result is produced, a repeat test will be implemented.</td>
<td>6 sites, as described below and shown on the maps on the following pages. Exact site location is subject to change based on practical access.

<table>
<tr><td>Mangatarata</td><td>2 sites on Waikopiro stream- just below SNA, and before it exits the forest.
Approx NZTM E2049066, N5769642
Approx NZTM E2045311, N5768314</td></tr>
<tr><td>Mata & Te Rawhiti</td><td>Ihungia River below last catchment confluence. Captures Mata and Te Rawhiti forests.
Approx NZTM E2053123, N5769183</td></tr>
<tr><td>Onetohunga</td><td>Below confluence of last subcatchment- tributary of Onetohunga stream.
Approx NZTM E2054747, N5767569</td></tr>
<tr><td>Mangaiti</td><td>Onetohunga stream- just before it leaves the forest above the farm.
Approx NZTM E2056372, N5766929</td></tr>
<tr><td>Mangarakai</td><td>Mangarakai stream- just before it leaves the forest.
Approx NZTM E2059496, N5766003</td></tr>
</table>
</td>
<td>Establish baseline February 2025, implement annually for 5 years to monitor effects of post-harvest canopy closure.

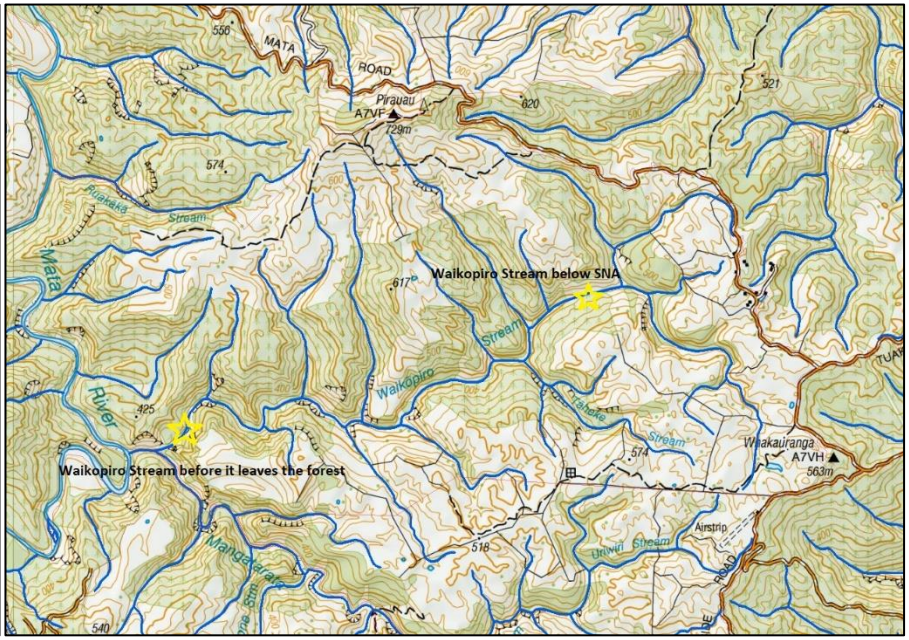
Switch 5-yearly during mid-rotation (age 5, 10, 15, 20, 25 years), and increase frequency to annual just prior and during next harvest.</td>
</tr>
</table>

Water Testing Sites

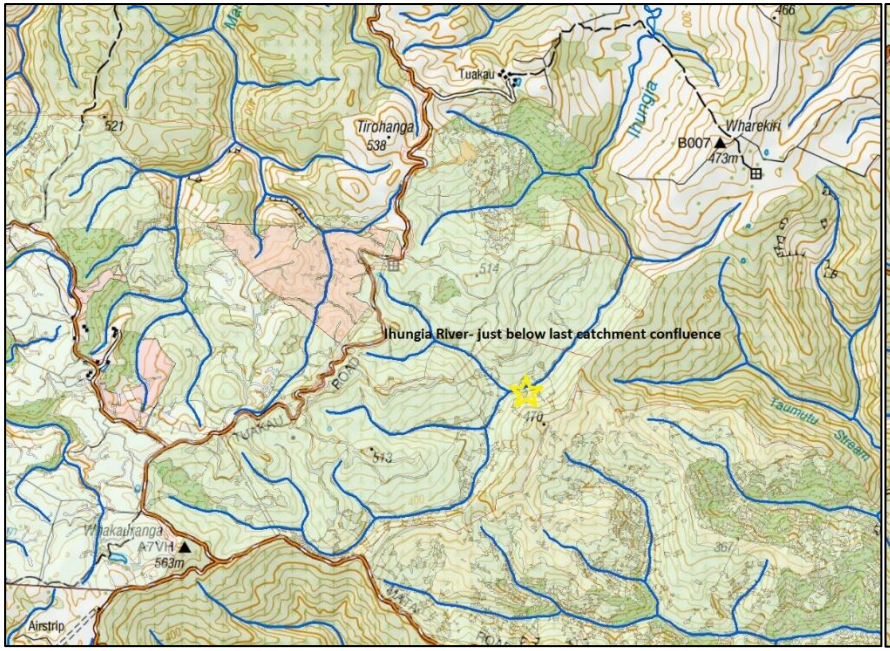
Mangaiti and Mangarakai forests



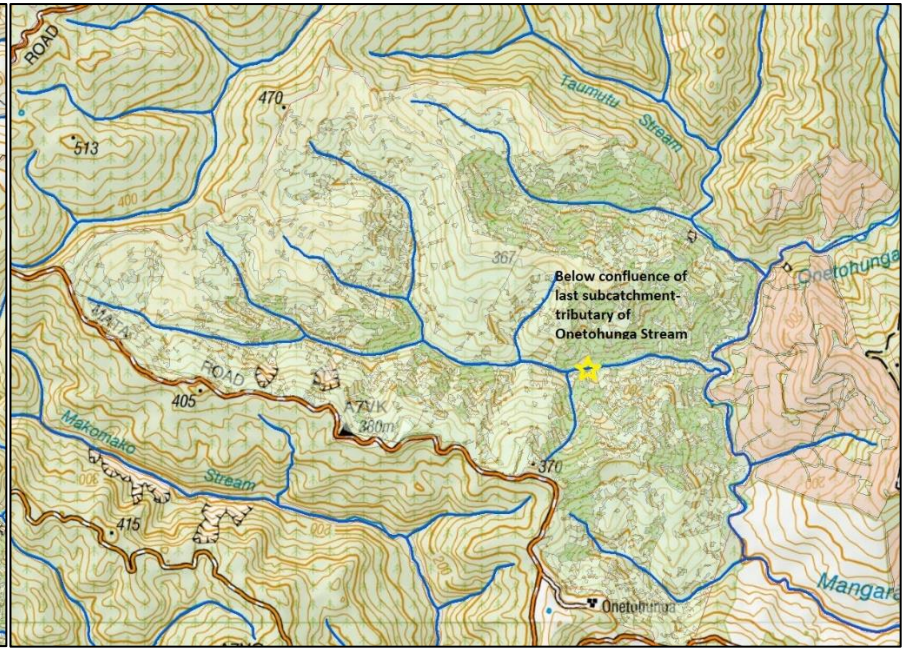
Mangatarata forest



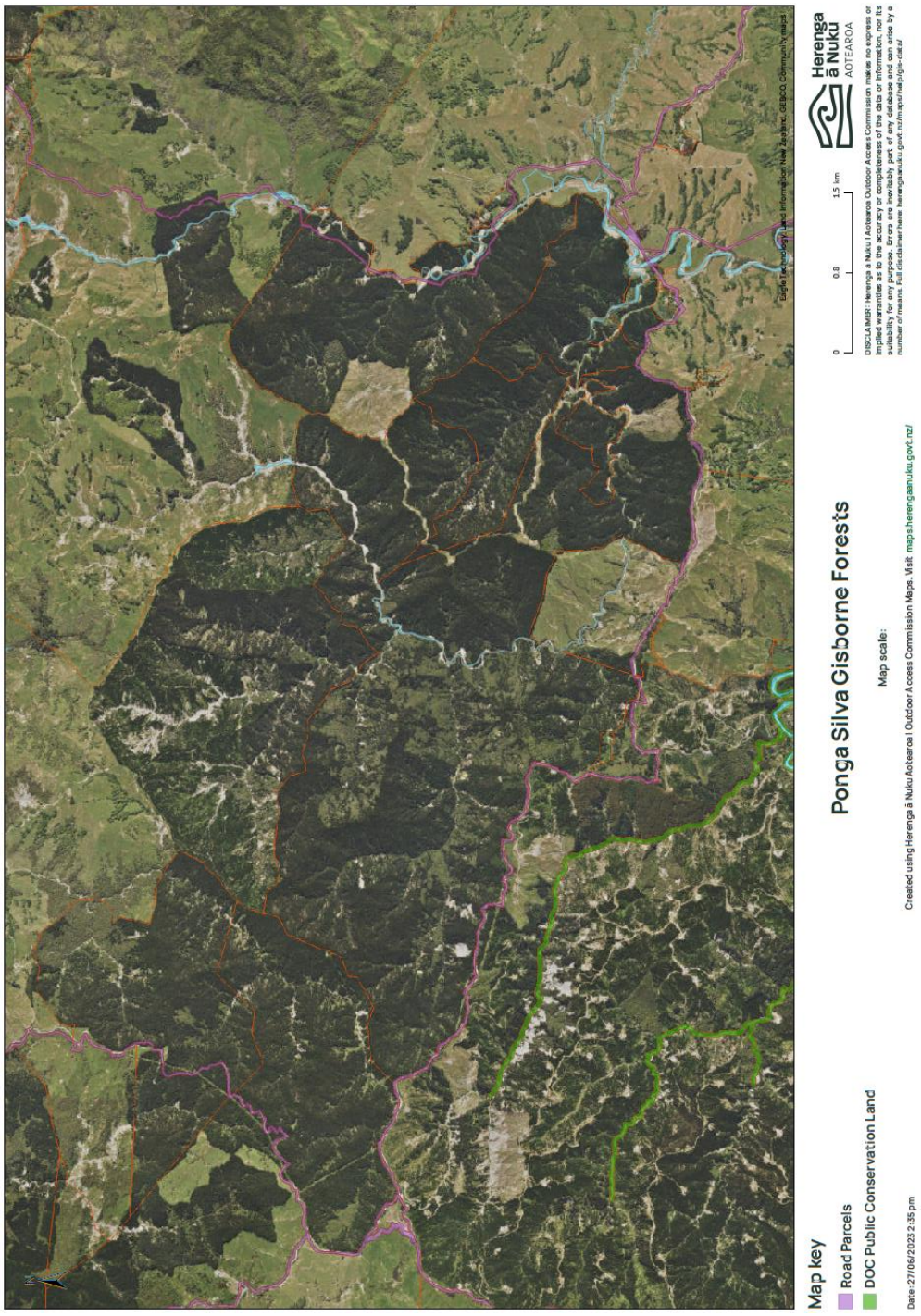
Mata and Te Rawhiti forests

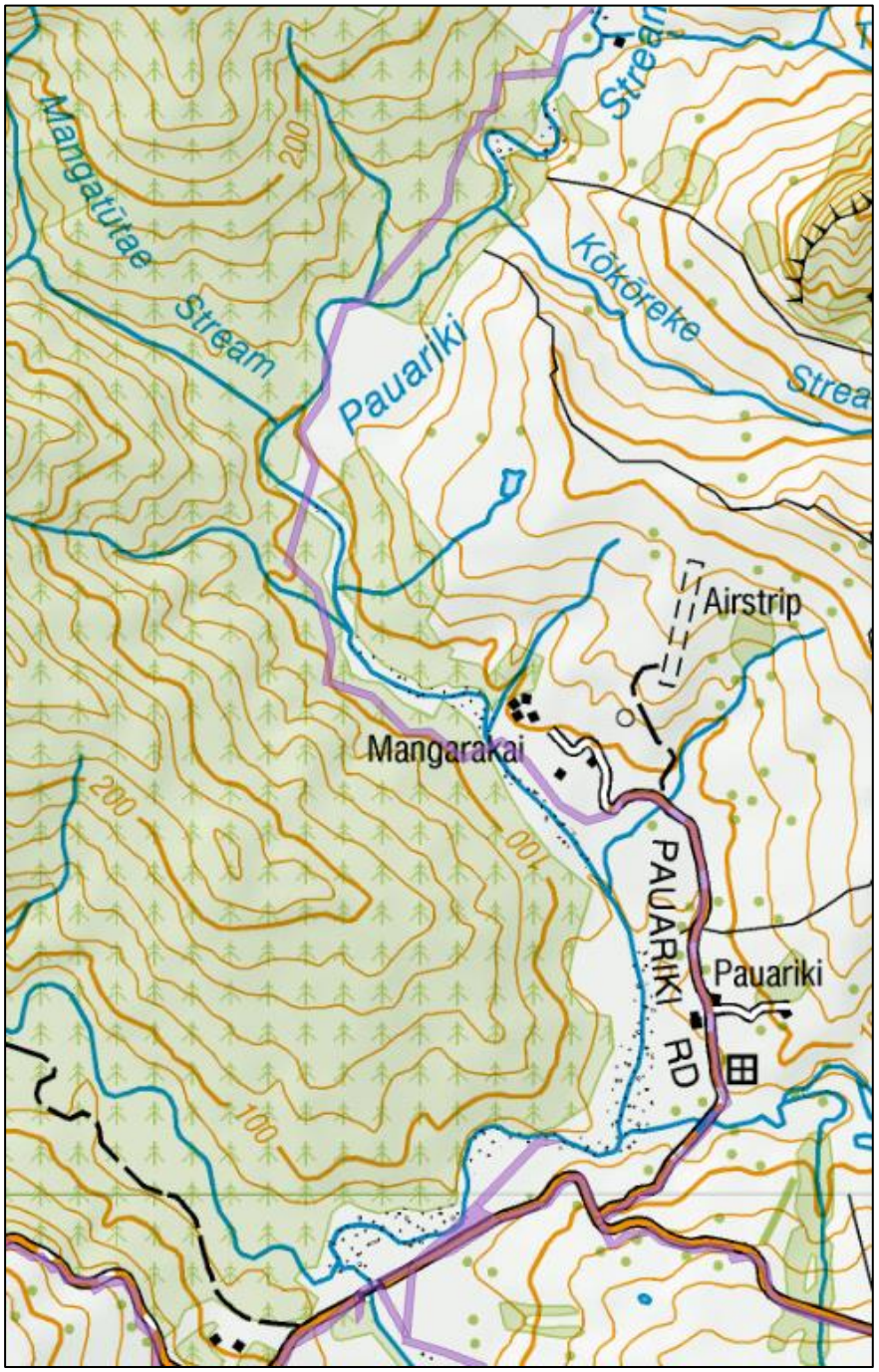


Onetohunga forest



Appendix 8: Public Access Map





Unformed legal road in Mangarakai Forest.