Wairarapa Estate Limited and Norsewood Estate Limited Monitoring Report

For FSC® Certified Forests (FSC® C131650)

December 2023



Monitoring Strategy

Forest Enterprises' monitoring strategy is aligned with Forest Stewardship Council® (FSC®) Certification, and covers the criteria outlined in FSC-STD-01-001 V5-2 International Standard and FSC New Zealand Standard 5.7 2013.

As of December 2023, Wairarapa Estate Limited (WEL) and Norsewood Estate Limited (NEL) are certified under certificate #FSC- C131650. Forest Enterprises aims to follow FSC principles when monitoring other forest estates under our management.

Forest Enterprises' staff, contractors and their employees follow sound environmental practices for all operations, so that the value of the forest asset continues to be enhanced.

Below is Forest Enterprises' Monitoring Plan, from which a public summary will be published annually.

Note: Commercially sensitive or personal details are not publicised.

Table 1. Forest Enterprises Environmental Monitoring Plan

Element	Indicators	Rationale	Procedures	Frequency
Crop Yields/ Reconciliation	Tonnes/ha	Efficiency and effectiveness of harvest Accuracy of planning	Volumes from FLITS Compare volumes and grades against inventory predictions	Monthly Full reconciliation at completion of the block
Growth Rates	Increment in tonnes or productivity m3/ha	Productivity of the forest	Permanent Sample Plots (PSP)	Annual Bi-annual Tri-annual
Changes to Flora & Fauna	Species presence/absence Regen present Rare, Threatened & Endangered species (RTE)	Biodiversity monitoring	As per agreed forest monitoring plan Contractor and staff reporting	5-yearly Before and after harvest Summarised annually
Forest Health	New forest pests or diseases	Crop health	Routine forest inspections	As required
Environmental Impacts Assessment	See EIA procedure			As required
Social Impacts	Employee numbers H&S statistics – Loss Time Injury Rate (LTIR)			
Post-Harvest	Waste Soil disturbance	Contract management	Staff visits Post-harvest inspection	Monthly
High Conservation Areas	Weed and pest control Photo points Ecological consultant analysis	Protect and monitor sensitive ecological areas	Weed and pest control visits and monitoring Photo points Ecological consultant analysis	Annually and pest control as required Bi-annually
Water Quality	As required by Resource Consent	Ensure operations maintain water quality	SHMAK testing in specific catchments of operational forests	March/April and October/November
Efficacy of Pest Control	Possum Residual Trap Catch (RTC) Hunter returns Compliance reports (weeds)	Maintain forests in good condition Comply with Regional Pest Management Strategy	Cooperate with AHB	As required and annually



Wildings		Good management practice Comply with RPMS	Spray or fell	As required	
Pesticide Use	See chemical requirements			Annual report	

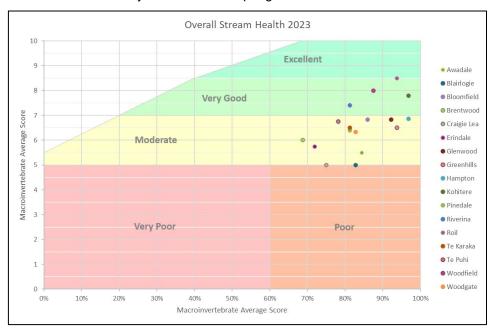
Native Flora and Fauna

- Rare, Threatened and Endangered (RTE) Species:
 - As of December 2023, 10 RTE sightings have been recorded (8 falcon and 2 land snails).
- High Conversations Value Areas
 - There are three High Conservation Value sites; Glenburn Saline Springs, Rocky Hills QEII Covenant and Kohitere Powelliphanta snail refuges. All are in good condition and thriving.
 - Trevor Thompson visited the QEII Covenant and reported the forest had a healthy understory and blooming ecosystem.
- Pest control results for FEL Estate are in the table below. 282 Bait stations were also refilled.

Species	Total
Deer	590
Pig	501
Goat	242
Wild Sheep	3
Possums	1497
Wild Cats	20
Wild Cows	5
Stoats or Ferrets	30
Rats & Mice	218
Hares	77
Rabbits	23
Quail	11
Hedgehog	83
Total	3300

Water Monitoring

• SHMAK (Stream Health Monitoring and Assessment Kit) monitoring sites have not been tested for Autumn 2023 due to cyclones and the Spring results are below.





Forest Health Monitoring

- Existing PSP's (Permanent Sample Plots) have been identified, mapped and monitored. More PSP's are to be established and existing to be remeasured in 2024.
- Forest health surveys were done in 2023.

Waahi Tapu and Archaeological Sites

 Waahi Tapu and Archaeological Sites have been mapped. Identification/notification booklets and posters have been issued to contractors.

Health and Safety

Forest Enterprises uses IRIS (Incident Recording Information System) through the New Zealand Forest Owners Association (FOA) to record all accident and incident data, which includes:

- Hours worked
- Near misses
- Medical injuries
- Lost time injuries

The system is used to monitor improvements in Health and Safety and to compare data against industry



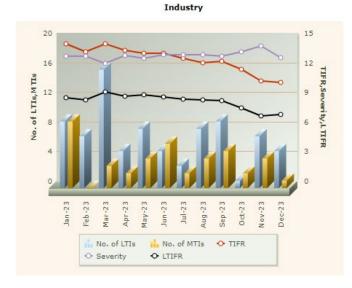


Figure 1. Health and Safety Statistics - Forest Enterprises and Industry, January to December 2023.

Figure 1 shows WEL & NELs health and safety statistics for the following:

- Total Injury Frequency Rate (TIFR) Calculated using lost time injuries and medical treatment injuries per 1,000,000 labour-hours worked.
- LTIFR calculates the number of lost time injuries per 1,000,000 labour-hours worked. For example, an LTIFR of 7 shows that 3 lost time injuries occurred on a jobsite every 1 million labour-hours worked.
- Injury Severity Rate The number of lost workdays experienced per 100 workers. The injury severity rate shows the extent of the safety anomalies by revealing how critical the injuries and illnesses are. The theory is that an employee who takes time to return to work after injury had a more severe problem than one who can return immediately.

Pesticides and Chemical Use

- Forest Enterprises has 16 FSC approved ESRA's.
- Forest Enterprises continues is to be a part an FSC cluster group and follow industry best practices (ECoP).



- Forest Enterprises continues to provide funding into industry cooperative research programmes in order to develop alternatives to highly hazardous chemicals.
- Forest Enterprises monitors the use of pesticides and chemicals (active ingredient and rate applied) within FEL Estate. Below is the list of pesticides and chemicals used during this year:

Type of Pesticide	Commercial name of pesticide / herbicide	Active ingredient	Reason for use
Herbicide	Glysophate 510	510g/L of glyphosate as the isopropylamine salt	Pre plant spray
Herbicide	Meturon	600g/kg metsulfuron-methyl	Pre plant spray
Other	Organosilicone	Polyether modified trisiloxane	Pre plant spray
Herbicide	Terbuthylazine	500g/L Terbuthylazine	Post plant spray
Herbicide	Valzine	75g/L Hexzinone + 425g/L Terbuthylazine	Post Plant Release Spray
Herbicide	Hexagran	750g/kg Hexzinone	Post Plant Release Spray
Pesticide	Pindone	Pindone	Pest control

