JUKEN NEW ZEALAND LTD

IMS MANUAL

Integrated Management System

Requirements for Forest Operations

This document provides information and health and safety and environmental requirements for JNL Staff & Contractors to meet obligations under the JNL Integrated Management System.

A copy of this manual should be available to contractor's employees in their work place.

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FORESTRY INTEGRATED MANAGEMENT SYSTEM (IMS)

Harvesting

FIELD FOLDER

Integrating Health & Safety and Environmental Management

Date Issued: **March 2013**

Date Revised: **August 2014**

Issued By:

Sheldon Drummond
IMS MANAGER
GENERAL MANAGER FORESTS

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IMS 2014 S1

IMS 2014 S2

IMS 2014 S3

IMS 2014 S4

IMS 2014 S5

IMS 2014 S6

IMS 2014 S7

IMS 2014 S8

IMS 2014 S9

Section 9: Company Policies

- Smoke Free policy
- Managing violence, aggression & stress in the workplace Notification Policy
- Policy on the use of Sodium Fluroacetate (1080) for Pest Control
- Chemical Management Policy
- Mechanisation on Landings
- Native Trees in Our Forests
- Maximum Hours of Work

Summary

The IMS aims to integrate Health & Safety and Environmental Management processes and procedures across the two Districts. Because of the nature of JNL's employment arrangements the IMS has been developed to manage all arrangements.

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Section One

Introduction and Induction

JUKEN NEW ZEALAND LTD

TO All NEW EMPLOYEES AND CONTRACTORS

Welcome to Juken New Zealand Limited

The primary function of our forest division is to grow, harvest and present wood resource to our customers, the main one being our Masterton mill. To remain competitive we must strive to achieve these functions as efficiently as possible.

We actively promote a professional approach from all employees and contractors working for us. You are encouraged to participate in the most constructive manner toward affecting a greater overall efficiency in our forests.

We operate an Integrated Management System (IMS) aimed at reducing incidents and minimizing loss to Employees, Contractors, Third parties and the environment, and Juken New Zealand Limited. Your supervisor will give you an introduction to the program and outline your responsibilities for ensuring that work is carried out in a safe and efficient manner.

All of us in the business have a statutory obligation for the promotion and maintenance of safe working conditions by working together on our approach to improving safety attitudes in what is potentially a dangerous occupation.

We hope that you will enjoy our employment at Juken Nissho Limited, and any helpful suggestions you can offer will be welcome.

Yours faithfully

Sheldon Drummond
IMS MANAGER
GENERAL MANAGER FORESTS

JUKEN NEW ZEALAND LTD

The Company

Juken New Zealand Limited (JNL) is a New Zealand registered company with its head office in Auckland New Zealand. Our 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 trading for over 50 years.

WOOD ONE Co. LTD, and its subsidiary companies in New Zealand, China and the Philippines, has a strong commitment to environmental management in respect of land, manufacturing and sales. The group has gained ISO: 14001, and ISO: 9001 Environmental and Quality Management Certifications. In addition the Wairarapa Forests and Gisborne Forests hold Forest Stewardship Council Certification. This commitment includes targets for recycling, the "E0" target for emissions from wood products, and certification of plantation forests under the Forest Stewardship Council, FSC.

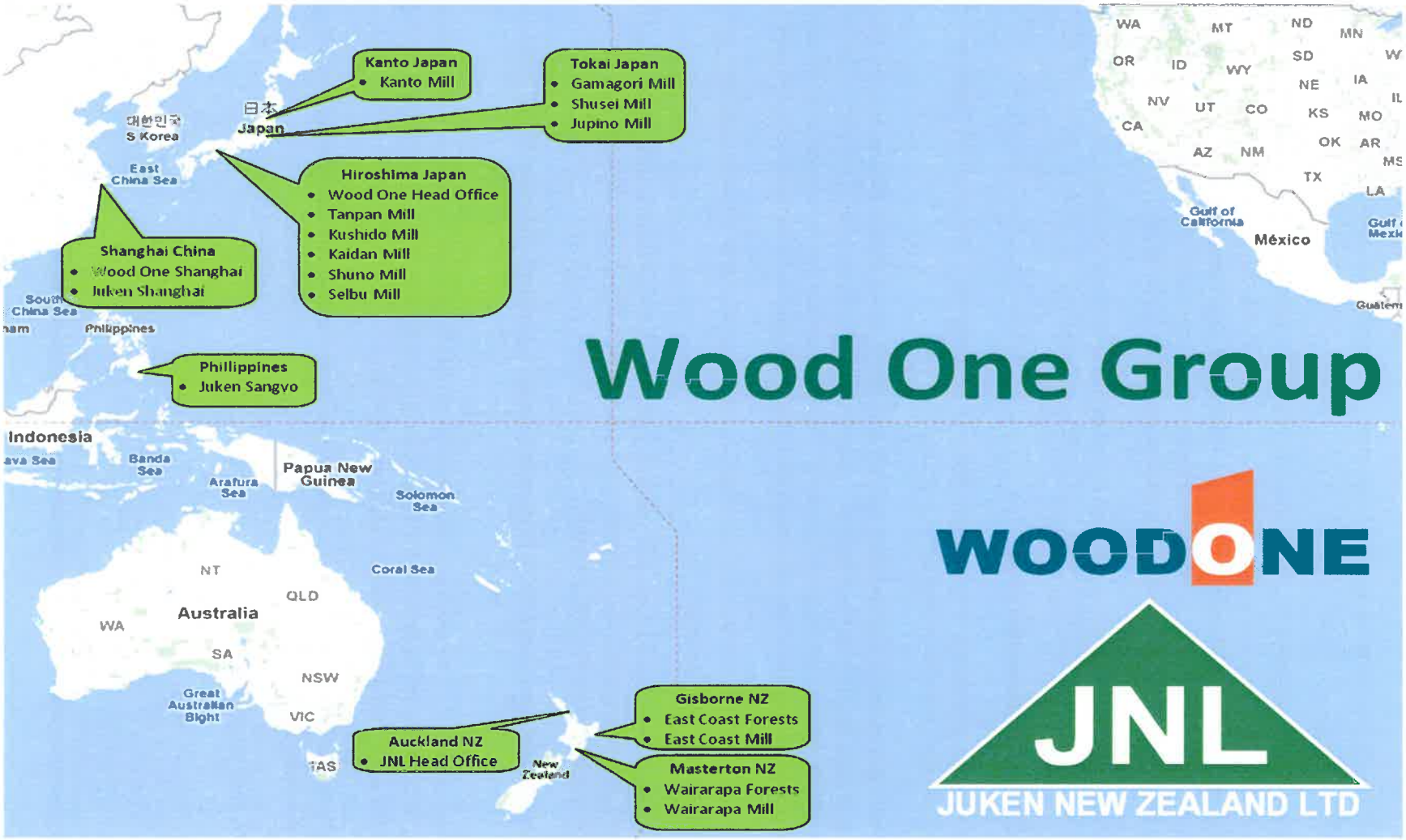
JNL was formed in 1990 following the successful acquisition of four Crown Forest Licenses under the then government's Crown Forest Asset Sale. These together with the further acquisition of freehold land, assignment of leases and other joint ventures with forest owners, make up a total forest estate of some 40,025 hectares. Of this 80% of the estate is plantation forest, comprising mostly *Pinus radiata*, the balance being non-commercial indigenous species held as reserves and/or covenant areas.

JNL's primary objective is the sustained yield management of the radiata forests for the production of clearwood 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 sourcing timber from South-East Asia and Pacific North-West.

JNL has two forest divisions located at Gisborne and Masterton which supply logs to their respective mills for the manufacture of Laminated Veneer Lumber (LVL); Laminated Lumber (LL); Plywood, Triboard and solid clearwood. Products are exported from Gisborne, Wellington and Whangarei to the **WOOD ONE** mills in Japan, China and Philippines for further processing into finished products and worldwide distribution.

To ensure our products are sourced and managed from sustainable forests the Company adopted the ISO: 14001 Environmental Management System to ensure ongoing credibility and commitment to managing the environment to international standards. ISO: 14001 accreditation was gained in 2001. To further enhance that commitment, the Company embarked on a process toward FSC Accreditation during 2006/07. The Wairarapa Forests were certified in March 2008, the East Coast District in November 2008.

Development of the ISO: 14001 and FSC standards, and ongoing improvement within the JNL framework being adopted, clearly defines our long-term legal and environmental objectives within our forest operations. The IMS manual and appendices define our system of ensuring compliance at all levels of our forest operations. All forest areas both production and non-production will be managed according to clearly defined Management Plans.


Kanto Japan
• Kanto Mill
Tokai Japan
• Gamagori Mill
• Shusei Mill
• Jupino Mill
Hiroshima Japan
• Wood One Head Office
• Tanpan Mill
• Kushido Mill
• Kaidan Mill
• Shuno Mill
• Selbu Mill
Shanghai China
• Wood One Shanghai
• Juken Shanghai
Phillippines
• Juken Sangyo
Auckland NZ
• JNL Head Office
Gisborne NZ
• East Coast Forests
• East Coast Mill
Masterton NZ
• Wairarapa Forests
• Wairarapa Mill
Wood One Group
WOODONE
JNL
JUKEN NEW ZEALAND LTD

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Policy - Forestry Integrated Management System (IMS)

Juken New Zealand Limited (JNL) is committed to the provision of a healthy and safe working environment for all JNL employees, contractors and their employees, Sub-contractors and their employees, visitors and others who may be affected by our activities.

Appropriate resources will be allocated to ensure that all relevant legislation including health and safety legislative requirements and environmental legislative requirements are complied with. JNL will ensure that the appropriate health and safety and environmental management systems are established, maintained and regularly reviewed so that the relevant legislation, regulations, codes of practices and safe operating procedures can be complied with and as a means to achieve continuous improvement in health and safety and environmental performance.

The IMS is the Forestry Division's Site Plan as provided for under the Juken New Zealand Health and Safety Management System (HSMS).

In Managing Health and Safety the company will:

1. Ensure that health and safety is the responsibility of all employees who must all abide by this policy and participate in healthy and safety continual improvement.

2. Take all practicable steps to systematically identify and assess all significant hazards. Ensure that management controls are in place for each of these hazards and that these hazards and their controls are documented. Ensure these controls for hazards are reviewed whenever there is a serious harm incident or an incident that had the potential to cause serious harm, and /or when new industry information is available for consideration.

3. Ensure all plant, equipment, substances and work processes are subject to hazard assessment and testing before being introduced into the workplace.

4. Ensure all employees, contractors and their employees, sub-contractors and their employees, training organisations and their trainees and volunteers, are adequately trained, supervised and provided with all relevant safety information to conduct their jobs safely.

5. Ensure all employees are provided with personal protective equipment and trained in its maintenance, use and storage.

6. Provide opportunities for consultation with employees on health and safety matters, including the provision for an employee participation system and ensure there is accurate recording, reporting and investigation of all accidents that did or had the potential to cause serious harm.

7. Ensure, with the employee's informed consent, that the employees who are exposed to workplace hazards have their health monitored.

8. Support the early return to work of injured employees.

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Environmental Management

Juken New Zealand (JNL) is committed to responsible environmental management as an integral part of its business. It is our policy to ensure the environmental integrity of our forest estate and operations at all times and at all places, by adhering to the following principles:

- Compliance with all relevant international, national and local statutory requirements and industry best-practice standards including the ISO 14001 program and the Forest Stewardship Council (FSC) Principles and Criteria.
- Compliance with JNL environmental best-practices will be a key focus in the training and performance of all employees, contractors and suppliers.
- Prevention of environmental damage will be through the deployment of management systems and procedures specifically designed to avoid activities and/or conditions that pose a threat to the environment. In this way JNL will mitigate risk to and protect the environment, our employees, contractors and the communities in which we operate.
- JNL will be prepared for emergencies to mitigate any adverse environmental effects.
- We will communicate our environmental commitment and performance to our employees, contractors, customers and stakeholders.
- JNL is committed to the conservation, preservation and preservation, and protection of Rare, Threatened and Endangered Species in forest areas under its stewardship.

This Integrated Management System Policy will be enacted by an IMS Manual with linkages to other JNL policies and procedures. Both this policy and manual will be regularly reviewed at least every two years but also when there are changes to legislation, organisation, client policies or serious failure of the management system (such as a serious harm or environmental incident).

Masa Ueki

Managing Director

Juken New Zealand Limited

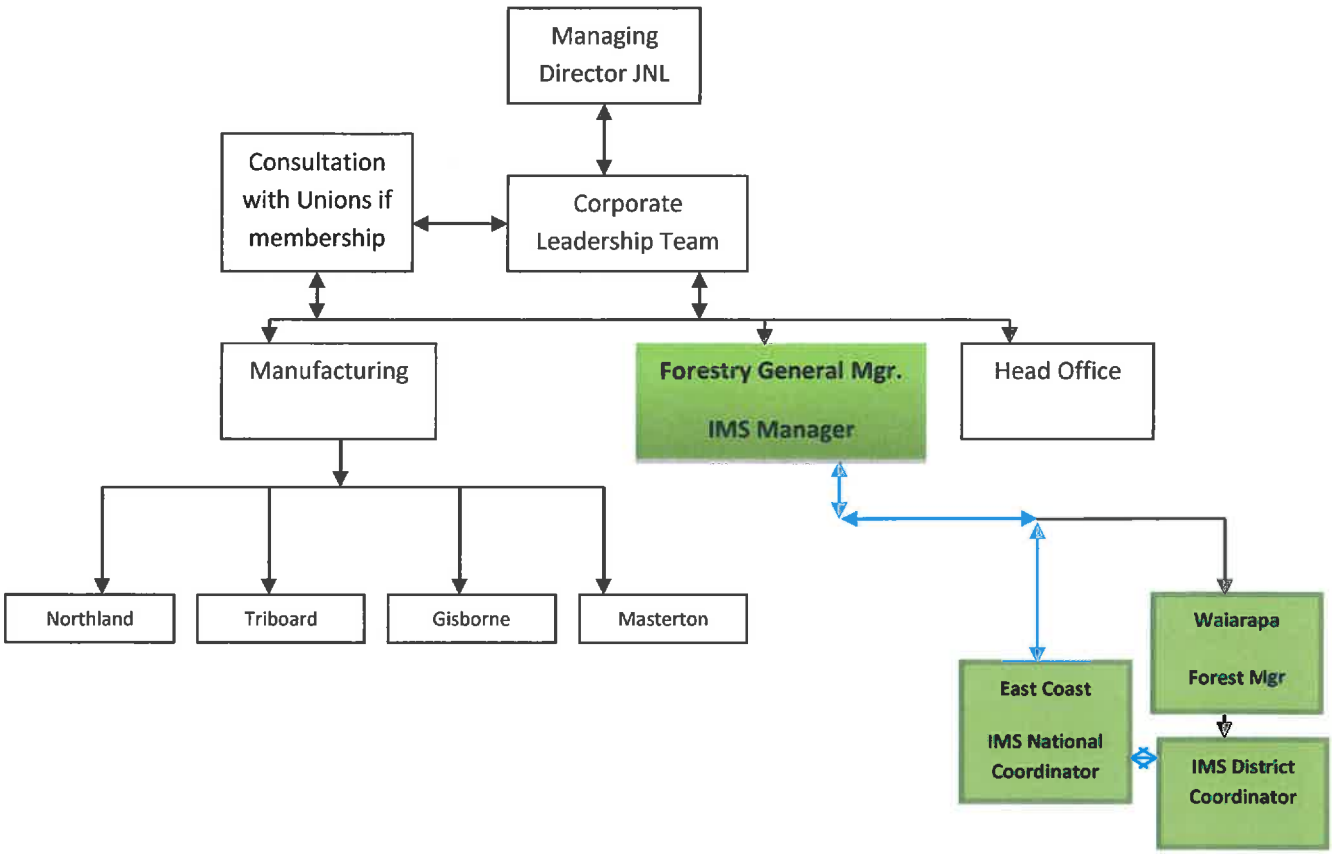
Sheldon Drummond

General Manager Forests

Juken New Zealand Limited

Date reviewed August 2014

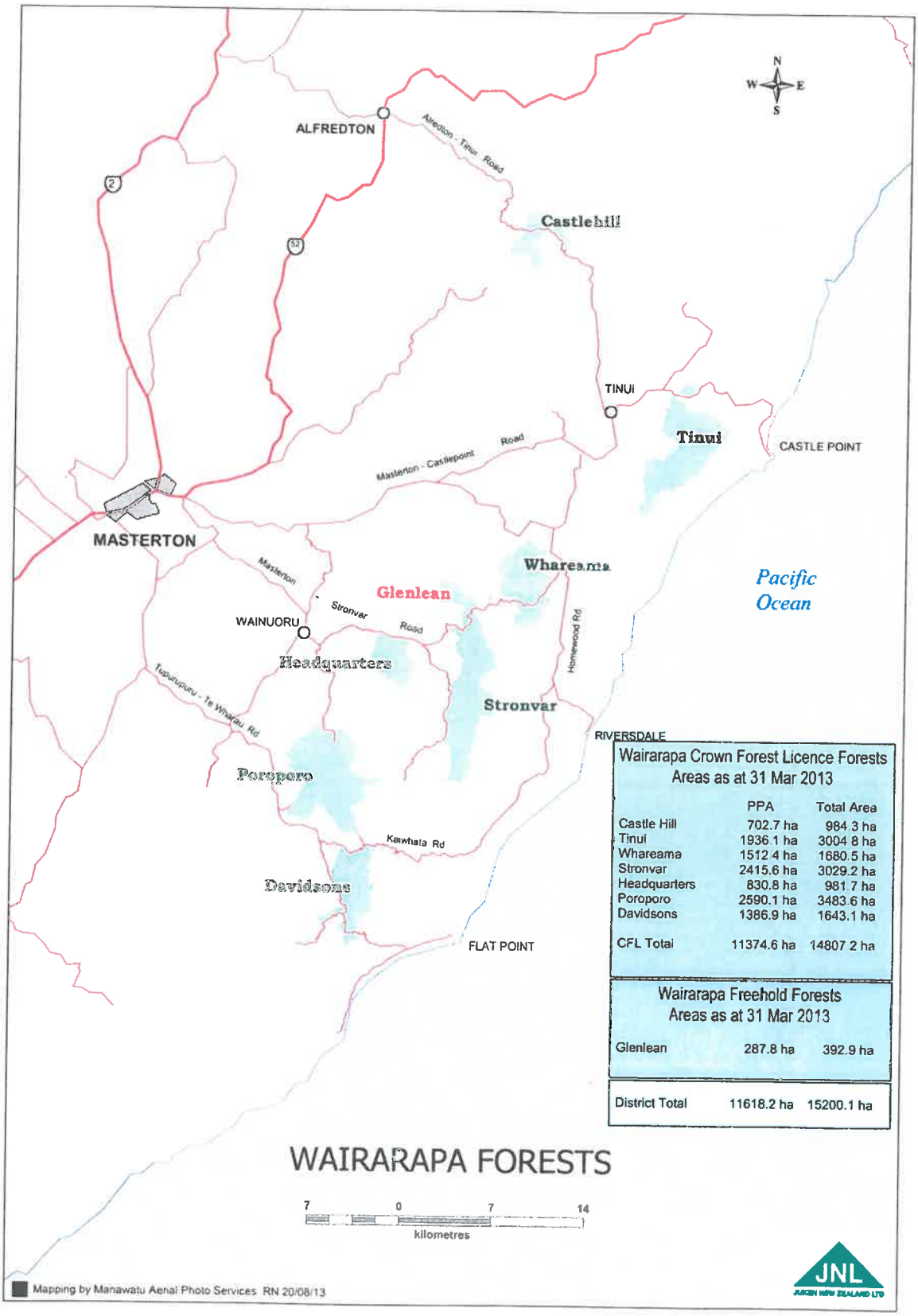
JNL IMS Organisation



IMS Structure by Position

Corporate Leadership Team:	Managing Director*, Director*, General Affairs Manager*, CFO/CIO*, GM Forestry*.
Manufacturing:	Mill & Assistant Mill Managers*, H&S Advisors.
Forestry IMS:	IMS Manager, Forest Managers* IMS National Coordinator, IMS District coordinators
Head Office:	General Affairs Manager.

* Denotes members of JNL's Senior Management Team. Meets monthly.


ALFREDTON
Alfredton - Tinui Road
Castlehill
TINUI
Tinui
CASTLE POINT
Masterton - Castlepoint Road
MASTERTON
Masterton
Glenlean
Stronvar Road
WAINUORU
Headquarters
Whareama
Pacific Ocean
Homewood Rd
Stronvar
RIVERSDALE
Tuputupuru - Te Whaiau Rd
Poroporo
Kawhata Rd
Davidsons
FLAT POINT
Wairarapa Crown Forest Licence Forests
Areas as at 31 Mar 2013
PPA Total Area
Castle Hill 702.7 ha 984.3 ha
Tinui 1936.1 ha 3004.8 ha
Whareama 1512.4 ha 1680.5 ha
Stronvar 2415.6 ha 3029.2 ha
Headquarters 830.8 ha 981.7 ha
Poroporo 2590.1 ha 3483.6 ha
Davidsons 1386.9 ha 1643.1 ha
CFL Total 11374.6 ha 14807.2 ha
Wairarapa Freehold Forests
Areas as at 31 Mar 2013
Glenlean 287.8 ha 392.9 ha
District Total 11618.2 ha 15200.1 ha
WAIRARAPA FORESTS
7 0 7 14
kilometres
Mapping by Manawatu Aerial Photo Services RN 20/08/13

7 November 2014

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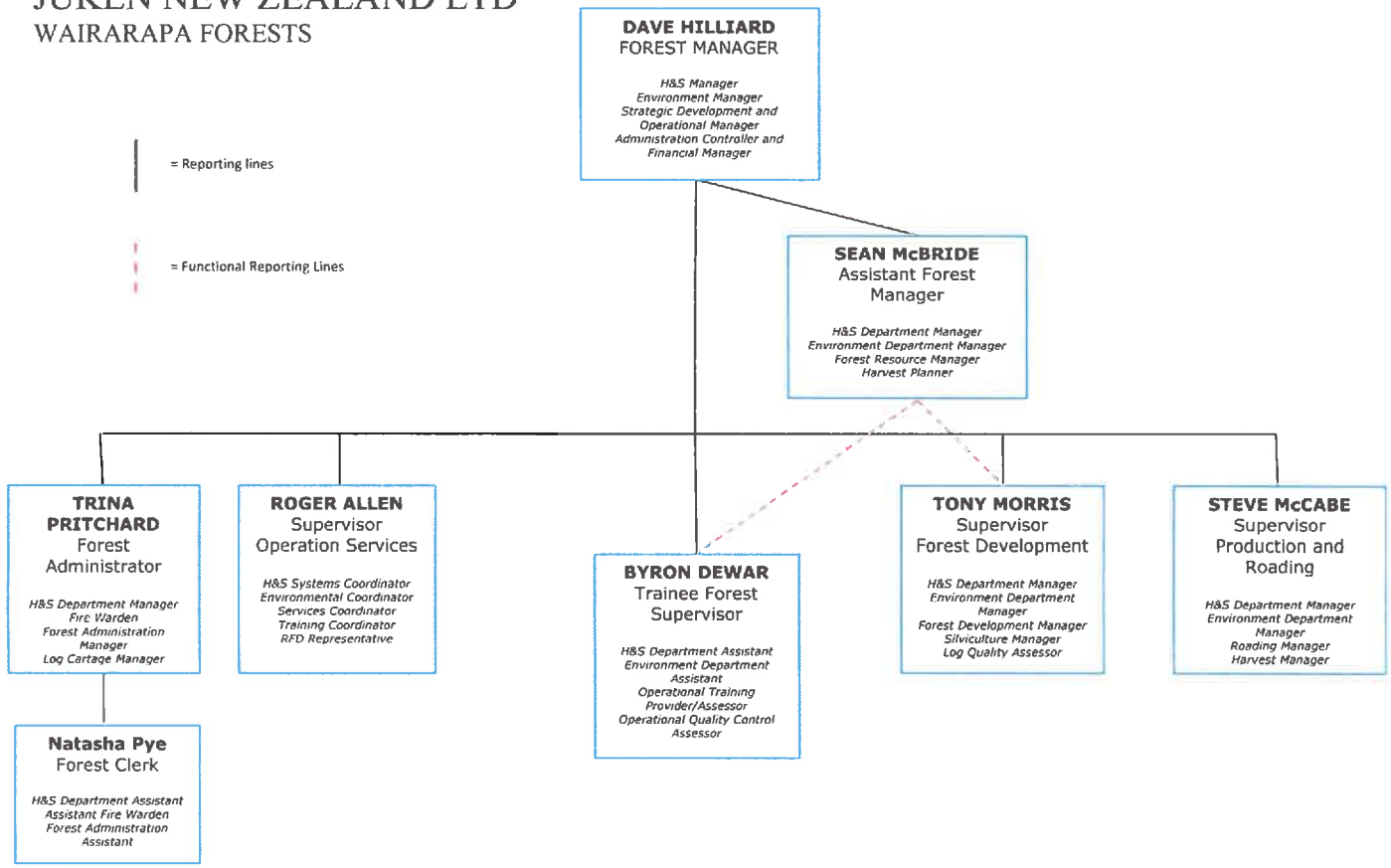
WAIRARAPA FORESTS



GENERAL INFORMATION

No Smoking Policy

The forests "no smoking" policy does not allow smoking in the office, in any company vehicle being used for work related activities and is restricted to roads, landings and other approved sites within the forest. In times of extreme fire danger, smoking in the forest may be banned altogether.

Site Access

Entry to the Forest:

Your Contract acts as a permit for Entry, but for work related activities only. It is not a General Access Permit for you or your employees. It is a condition of access that JNL is advised whenever you enter the forest. We have a radio call in procedure when you enter and leave the forest. The full details of this procedure can be found in the policies section at the back of this field folder.

Access for Recreational Activities:

You will require a Permit for Access for any activity not directly related to your work – this includes hunting, cutting firewood, sightseeing, mountain bike riding etc. Contact your Forest Supervisor for a Permit.

Entry to the Mill:

All access to the Mill site must be through the Forest office. If your visit will include entering the Mill logyard or factory, you will need Safety footwear. We have Hi-viz clothing, helmets, ear and eye protection in the office.

Security of Property

You are responsible for the Security of your work equipment. JNL has installed locked gates to assist, and carry out periodic after hours security patrols. However, it is your responsibility to ensure these gates are locked at the end of the working day. If you are in doubt as to whether someone else is still in the forest behind you – try calling them on the radio. If they don't reply, lock the gate anyway as anyone following should have their own key. The key(s) issued to you are your responsibility, and should never be loaned to anyone. If you lose or misplace a key, you must inform your Supervisor immediately.

Silviculture Minimum Crew Numbers on a Worksite Site

The minimum number in a crew carrying out silviculture operations shall be three at any one time, two of whom must hold current first aid certificates. The exception being silvicultural plotting or field technician activities.

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FSC CERTIFICATION

- Forest Stewardship Council (FSC) is a system designed to look at whether we are managing our forests responsibly.
- FSC concentrates on how well we manage the land and people.
- FSC is based around 10 basic principles
- JNL's first forests gained certification in March 2008, and will continue to be audited to retain the certification
- Many markets around the world now demand their wood to be FSC certified.
- FSC auditors will be spending time in JNL forests and talking to you.
- If JNL receives a major corrective action report (or CAR) it means we could lose our certification. If this happens all our jobs could be on the line.
- It is important that you are thinking about FSC and what it requires in your daily activities.

- **GOOD ENVIRONMENTAL PRACTICES**
- **HOW TO ACT IN AN ENVIRONMENTAL INCIDENT**
- **CONSIDERATION FOR OTHER STAKEHOLDERS**
- **AWARENESS OF NATIVE SPECIES**

Principle # 1: Compliance with the Laws & FSC Principles

- Obey the law & international agreements whilst working in the forest
- JNL has to comply with laws & regulations

Principle # 2: Tenure & Use Rights & Responsibilities

- JNL & their workers have to respect the owners of the land & their rights
- JNL have a number of Joint Ventures, Cutting Rights &Forestry Rights which you will have to work in from time to time.

Principle # 3: Indigenous Peoples Rights

- Maori have ownership & access rights to the land & the forestry they own
- If you accidently find something that looks important to Maori or looks historic inform your contractor or supervisor.

Principle # 4: Community Relations & Workers Rights

- JNL & their contractors need to respect the needs of the community & your rights as workers.
- Are you paid on time? Are you paid properly?
- Have schools, neighbours or other parts of the community been informed about your activities?

Principle # 5: Benefits from the forest

- JNL operate on an access permit system
- You can get a permit to hunt out of the fire season
- You can get to walk, run, bike etc.
- You can get a permit to collect traditional foods etc

Principle # 6: Environmental Impact

- Most of what we do in forestry has an impact on the environment
- Take care when handling chemicals. Mix them right, have good gear, apply them in the right place to the right weeds, be trained correctly, minimize spills & be aware of what to do in the event of a spill.
- No slash or soil put into waterways on purpose
- Handle fuel with care, under FSC fuel is another chemical
- Be careful when working around native areas or areas that have high conservation value

Principle # 7: Management Plan

- JNL has a management plan which sets out what you do as workers in the field
- The public & yourself have a right to look at the public summary of this management plan
- The management plan has to be updated depending on what you are expoect4ed to do.

Principle # 8: Monitoring & Assessment

- JNL monitors your health & safety, your production, your rates & many different things about the forest.
- It is important that you watch these things too.

Principle # 9: Maintenance of High Conservation Value Forest

- JNL has a number of native forests, significant waterways & potentially areas where rare & endangered species may exist.
- It is important you work around these areas carefully & try not to disturb them.
- Most of these areas are marked on maps so it is important you know how to identify these.

Principle # 10: Plantations

- Plantations should be able to be renewed & used for long periods of time (sustainable)
- You need to make sure what you are doing is sustainable.
- Activities should reduce pressure on native forests.

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JNL & Contractor Employee Environmental Responsibilities

Purpose	Meet environmental requirements for the operation
Procedure	Make sure you are aware and discuss operating requirements with site foreman before starting • Read the prescription and best practices regularly to understand what's required • Identify work area boundaries and do not cross these Report any hazards or environmental damage found or caused during work
Skills	Follow JNL Best Practices to prevent damage to people, environment and property
Training	Ensure that you have appropriate environmental training for the job. Important things to know are: • What constitutes an environment impact or effect • Techniques to avoid creating an environmental impact • Emergency preparedness and procedures • Identifying and reporting environmental incidents and emergency situations • Identifying, reporting, and communicating work place hazards • Checking and reporting of incidents or any relevant concerns to JNL • Taking action to correct a problem or prevent it from happening again
General standards	Don't throw rubbish around site – take empty water bottles, waste fuel and oil containers to vehicle/rubbish bin and take out of forest. Don't spill oil, diesel or hydraulic fluids; collect in a container and take out of forest. Protect and Report sightings of Rare, Threatened and Endangered species. Assume nothing – if in doubt, ask the foreman
Other Documents	• Health and Safety requirements • JNL IMS Field folder

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Juken New Zealand Forestry Division Employee Participation System

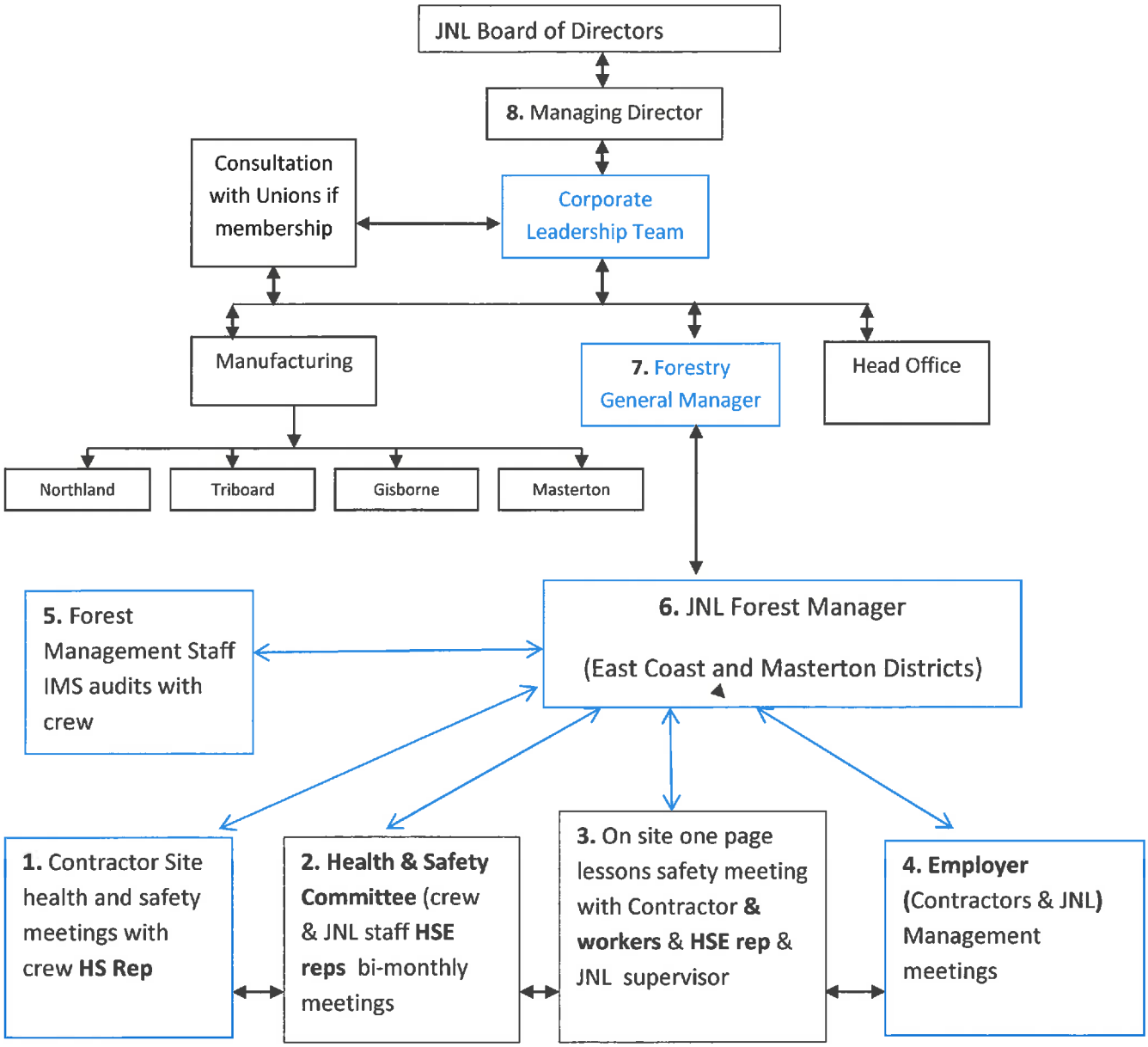
JNL is committed to providing reasonable opportunities for all employees to participate in effective development and continuous improvement of workplace safety and health. As such JNL employees and Contractor employees agree to the following employee participation system and agree to implement and maintain this system. This employee participation system will be reviewed no less than annually. This Employee Participation System is depicted on the following page and is designed to allow involvement and participation and decision making catering for individuals and groups in the following ways;

1. Health and safety meetings held on site amongst the JNL groups and Contractor groups.
2. It is from these employer based site meetings, that Health and Safety Representatives of these groups take recommendations or concerns to the bi-monthly health and safety committee forum.
3. One page lesson safety meetings held with JNL supervisor and site crews
4. Employer forum meetings.
5. IMS site audits with Crews
6. Individuals and groups have access to the Forest Manager to raise health and safety and environmental issues.
7. JNL Senior Management Meetings report & discuss District Health and Safety matters as an agenda item.
8. JNL Corporate Leadership Team receives HSE statistical reports from Districts and also discusses and provides decision making on HSE matters raised requiring higher company wide decision making and fiscal management. Leadership team formulates, authorizes and monitors annual health and safety objectives and management plan.

JNL reserves the right to express in writing or verbally any rejection or modification recommendations made by forums 1-5 on the grounds that it is not a practical step and or there are other steps being taken to address those issues raised.

The process to agreeing to this Employee Participation System is by holding safety meetings specifically to vote on this system & any system review starting at forum 1, this is taken to forum 2 then the result of this is taken to forum 4 and signed off at forum 6.

Employee participation system structure.



IMS Structure by Position showing employee participation tiers and decision making pathways.

Masa Ueki

Managing Director

Juken New Zealand Limited

Date reviewed August 2014

Sheldon Drummond

General Manager Forests

Juken New Zealand Limited

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Section Two

Hazard Management

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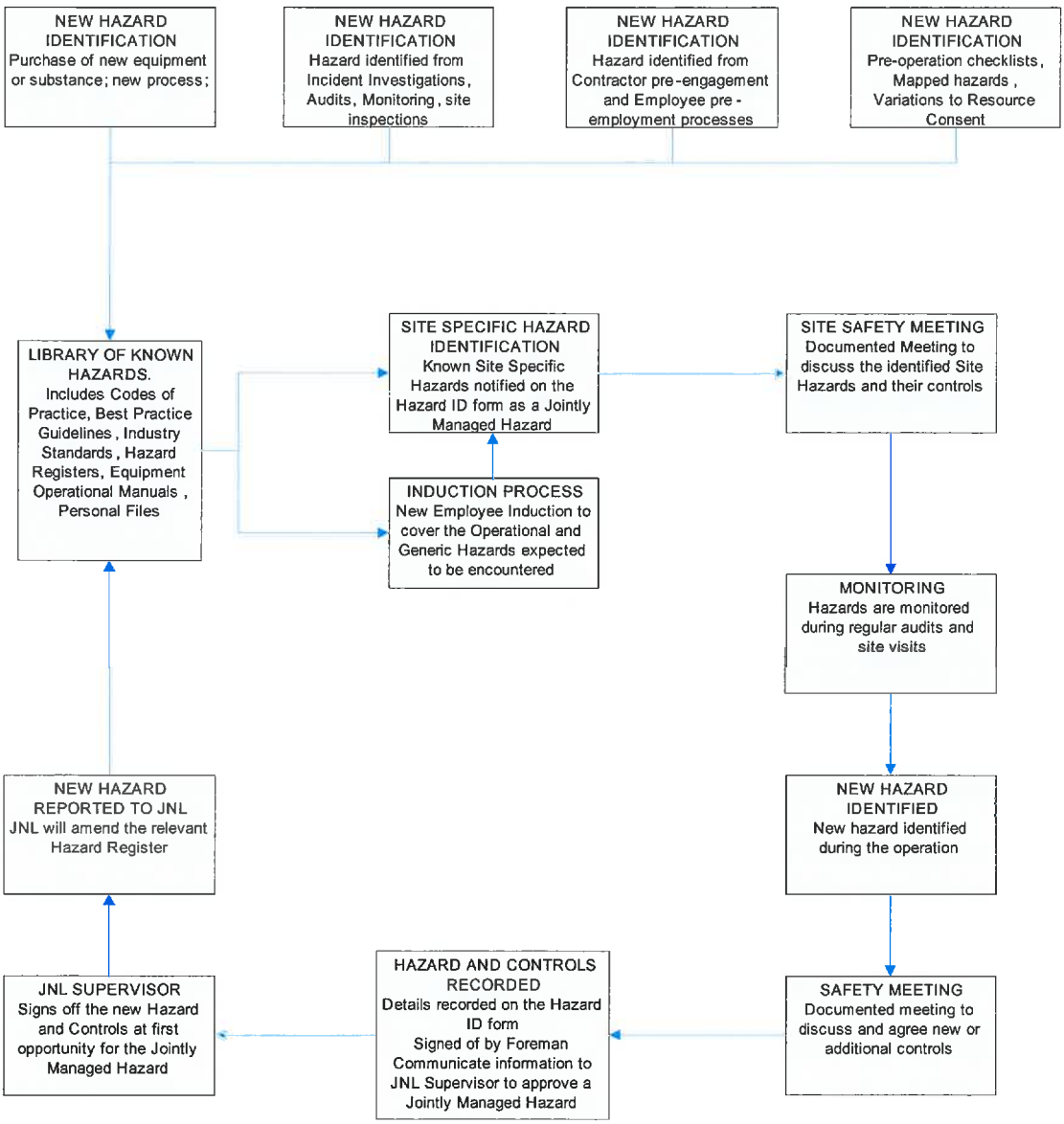
The Hazard Management Process

There are 14 main proactive mechanisms used by JNL for hazard management.

1. Pre-engagement audit of prospective employee or contractor's to test suitability of systems to work safely for the company.
    a. Failure of an audit or any part of the audit need not necessarily prevent engagement of a contractor.
    b. Where this is the case JNL is obliged to manage any deficiencies until such time as they are corrected and proven to be successfully implemented.
2. Offer of employment processes. (For JNL Employees, refer to **JNL's *Generic Engagement and Induction Processes)***
3. Entry point at medicals detailing any inherent medical employee hazards that may be present. FSC 6.6.16 & 4.4.3
4. Site audits and company supervision to ensure pre-engagement audited systems are in place and working on site and safe operating procedures are being followed.
5. Entity specific site audit assessments.
6. Drug testing
7. Training, including one page lessons delivered to crews by supervisors as a safety meeting.
8. Review of hazard management controls.
9. Medical monitoring of exposure to hazards
10. Information dispersal to employees and others.
11. Monitoring of trends to enable targeted corrective action or continuous improvement.
12. The assessment for hazards in new sites, processes, plant, equipment or substance.
13. The assessment of environmental effects and jointly managed site specific safety & environmental hazards
14. The JNL forestry Employee Participation System

- The following outlines hazard components for forestry and the forms used are exampled on pages 17-29
- Then a list of documentation and records required to be held on site

HAZARD MANAGEMENT



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Hazard Management Components:

Hazard Management is at the centre of the IMS and has 9 components.

1. Managing Employee hazards

Example hazards:

- medical conditions, drugs, lack of training

Example hazard management option:

- pre-employment processes, random drug testing, competency tests, early return to work, light or alternative duties etc

2. Managing Operational hazards *(or those created whilst at work)*

Example hazards:

- Using a chainsaw, using a ladder, using a digger,

Example hazard management option: :

- Training, buddy system, industry statistics, industry best practice guidelines, hazard register, safety inspection audits.

3. Managing Site Specific Hazards

Example hazards:

- Hazards about which the Principal has specific knowledge.
- Landing configuration, forest access, wind-throw, bluffs, other operations using the site.

Example hazard management option:

- JNL site specific hazard identification notices, identification whilst working on the site & info back to Principal for re-issue.

4. Jointly managed hazards

This is where two parties on the same site agree and sign off how to manage particular hazards on the site together.

Example hazards: Planting crew access through hauler site, helicopter pre-plant operations over hauler site etc.

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5. Management of Suppliers *(includes contractors & sub-contractors)*

Example Hazards:

- Hired machinery, new machinery, maintenance & service workers, suppliers of tools and equipment, substances etc.

Example hazard management options:

- Employee, operational & site specific hazard identification, pre-engagement health and safety audit, medical monitoring, drug testing, safety inspection audits.

6. Hazardous Substances Management

Example Hazards:

- Petrol, diesel, agrichemicals, cyanide, medical sensitivities

Example hazard management options:

- Pre-employment processes, material data safety sheets, JNL site specific hazard identification, HSNO register.

7. Managing the duty of care to others

Example Hazards

- School buses, visitors trainees, ITO's, volunteers, maintenance workers etc. Hazards left to be managed after operation ceases

Example hazard management options:

- Site Specific & Jointly managed hazards, visitor register, Notification of new hazards & Post Operation Site Clearance

8. Notification of hazardous work: Statutory Department of Labour notification. Can register this on line at http://www.business.govt.nz/worksafe/notifications-forms/particular-hazardous-work

9. Environmental Hazards:

Example Hazards

- Soil and water, significant waterways, Rare, threatened & endangered species, Significant non-plantation forest, Archeological sites, Neighbouring sensitive sites or activities.

Example Hazard Management Options: Refer IMS pre-operations monitoring format and prescription

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Hazard Registers

All Significant Hazards, their controls, and details of reviews are maintained in a series of JNL IMS Hazard Registers. Note that legislation requires that all Significant Hazards are to be notified to employees. JNL Hazard Registers list only those Hazards considered as Significant.

- Generic Health and Safety Hazard Register contains details of hazards that can affect people no matter what the task, location, time of day or season of year. The health hazards include hazards such as known medical conditions, the effects of drugs and alcohol, stress, noise, allergies etc. The safety hazards include such things as working alone, insufficient training to carry out a task, being lost etc.
- Operational Hazard Register contains information on hazards that are related to operational issues such as operating a chainsaw, driving a vehicle, pruning a tree, application of chemicals etc.
- Site Specific Hazard Register includes such hazards as tomos, power or telephone lines through or adjacent to the trees, areas of Significant Non-plantation, Significant waterways, logging waste pile, excessively steep slopes, windthrow etc.
- The Environmental Hazard Register (formerly known as the Assessment of Effects). It contains information on the potential environmental effects of various operations (e.g. harvesting, earthworks etc.) on a range of environmental considerations (e.g. Soil, Water, Community etc.)
- The Hazardous Substances Register contains information required under the HSNO Act to be maintained about substances (agrichemicals, pesticides, oils, fuel oils etc.) that are deemed Hazardous.

Any review of any Hazard or Control will involve the agreed new Hazard or new/amended Controls being entered into the Hazard Register in the column "Reason for Review". Insert the date of review, and a numbered form reference as to the reason for the review.

Hazard Review Timetable

Hazards are reviewed on a regular basis by the following means throughout the year:

- At the operational planning phase
- During an incident report and investigation
- At pre-start up hazard meetings and employee inductions
- Daily (breaking out operations by way of example)
- Publicised new industry information and incident flyers
- Through on job training and qualified assessments for unit standards
- Quarterly operational audits
- Cross-District audits
- Health and safety committee meetings.
- One page lesson delivery to crews by supervisors

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Environmental Hazards

Environmental hazards are assessed for effects prior to an operation commencing by JNL staff using the Pre-operational and Monitoring form and also the Site Specific Hazard ID form as outline in the IMS prescription procedure.

All prospective land acquisitions are to have assessments completed before purchase is finalised.

Approved Handlers

All JNL agrichemical application operations will have a suitable qualification such as 'Growsafe' and if required (in the case of toxic substances), an Approved Handler on site at all times and the comply with industry best practices and comply with the NZ Standard for Management of Agrichemicals *NZS 8409:2004*

HSNO for Forestry Guidelines.

All other operations dealing with hazardous substances and new organisms will abide by the HSNO legislation and The Approved Code of Practice for Forestry Operations.

Specialist Advice can be obtained from:

http://www.legislation.govt.nz/

http://www.mbie.govt.nz/

http://www.business.govt.nz/worksafe/

http://www.acc.co.nz/

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Prescriptions for Operations Targeted using the Operation Pre-Planning Prescription and Monitoring Form

Hazards that are specific to an area of forest or operation are handled at the operation prescription, monitoring form stage and documented with the aid of the compartment map identification and a site specific hazard identification form. The site specific hazards for any one particular site or operation are also covered and conveyed verbally and in writing to workman at start up site safety meetings.

All JNL operations are planned to meet legal and resource consent requirements and implemented through the use of NZFOA NZ Environmental Code of Practice for Plantation Forestry, JNL prescriptive best practices and the application of the JNL Assessment of Environmental Effects for each operation that has the potential for significant environmental impacts.

Prescriptions: The following prescription procedure applies to these operations.

- **Harvesting**
- **Roading/Earthworks**
- **Mechanical land preparation**
- **Aerial spraying and operations involving chemical application**
- **Quarrying**
- **Spot spraying**
- **Burn-off operations**

- An Operation Prescription and Monitoring form checklist must be completed before issuing the Prescription for signature. The Checklist is designed to ensure that all necessary requirements have been considered. This is also the operations monitoring form.
- Prescriptions are to be prepared in duplicate to allow both JNL and Contractor to be issued a copy.
- Maps and site specific hazard forms are to be signed by both parties prior to the commencement of the operation.
- The Supervisor then loads IMS database in the Environmental drive with the new operation details (the prescription register).
- Prescriptions and site specific hazard ID's are issued for each work site location.

- On completion of all routine and final compliance monitoring, the supervisor enters the data required into the IMS database. And archives the completed prescription out of the prescriptions in progress folder to the prescriptions completed.

- Noncompliance with the prescription or NZFOA NZ Environmental Code of Practice for Plantation Forestry, Resource Consent condition, JNL Best Practice or health and safety (including a <90% operational audit score and late monthly reporting) will be rectified with the issue of an action request or suspension of the operation may occur if the situation warrants. Crew environmental performance scores are calculated by subtracting from 100% the number of action requests (AR) issued for the job divided by the number job visits (V) expressed as a percentage e.g. 100%-(AR/V)%

Prescriptions have four common components

1. Pre-operation checklist & monitoring form (JNL staff copy only required but contractor/crew copy available on request)

2. Map(s) with the following hazards clearly shown:

    - Operation/setting boundaries

    - Any significant areas (Significant non-plantation forest areas, Significant waterways, boundary fences, Historic or cultural sites, RTE's etc.)

    - Specific locations defined for stream crossings that are on Significant Waterways

    - Known location of any other site specific hazards

3. Site Specific hazard notifications may include by way of example any specific variations to a Resource Consent Condition, or operations that may jointly occur at the same timer etc. In general these notifications target and notify to the workforce what is different from the norm about the site. All site specific hazard ID forms must be signed by JNL, the contractor and any other persons on behalf of the contractor who may deputize as a 'person in charge of that work site' before the operation commences.

4. When starting in a new forest or changing to different forests, a Notification of Particular Hazardous Work may be needed depending on the operation, a list of activities requiring hazardous work notification is on the notification form. This is a statutory requirement.

All other operations as listed in Section 2 on page 9 of this manual have the same documentation and procedure. The exception, being burn off operations, which may be supported by burn plans and burn permits, and chemical applications that require issuing of SDS sheets and spray formulations.

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Pre-Operations Procedure

Purpose	• Preparation of prescription and contracts before commencing site work • Ensure legal, environmental and operational requirements are met
Responsibilities and lines of communication	• Operational Plans/Resource Consent Applications/Contract Preparation by Harvest Planner, Superintendent, Operations Manager • Pre operation meeting and prescription prepared and signed by Supervisor/ Contractor or Person in Charge of the Workplace
Payment approvals	Authorised JNL representative approves contract and/or payments on contract note, purchase orders, work orders or;
Records	• Resource consents and approval on variations to consent • Planning notes and maps • Prescriptions • Pre-operational meeting notes • Contracts, contract notes, purchase and work orders and minor contracts documentation. • Forest site specific hazard register These records may be kept in contractor, operational or resource consent files

Variation to consent

When a deviation from the original plan submitted with the resource consent (or permit) is necessary, and such deviation requires a Resource Consent, then the regulatory authority must be contacted to inform them of the proposed alteration to the plan, and approval sought

This action avoids a breach of the consent.

The notification process may be managed by:

1. Discussion with the relevant regulatory officer
2. Clear diary notes may be sufficient record of verbal communication
3. Confirm that approval given by Council
4. Copy of diary notes attached to relevant resource consent (in file)
5. Copy of agreed changes to plan to regulatory officer
6. Apply for formal variation to consent if requested

Silviculture Prescriptions

Planting, Pruning and Thin to waste operation Prescriptions are lodged as schedules to the Contractor's General Contract with JNL. Environmental restrictions on these operations are held within these prescriptions including (but not limited to):

1. the distance of planting from the outside wire of power lines,
2. the distances from planting the edges of roads and tracks
3. distances of planting from significant streams, rivers and waterways
4. the protection of riparian edges and significant waterways during thin to waste operations.
5. Slash management of pruning and thin to waste operations

Maps are issued per planting, pruning or thin to waste operation at the stand level with the operation type and stems per hectare required written on the compartment map. Site specific hazards are noted on the map.

Site specific hazard ID notifications are issued per work site (for silviculture this means per cmpt/stand), and these notifications are signed off as jointly managed hazards by JNL, the Contractor and any other person in charge of the work place who deputizes for the contractor.

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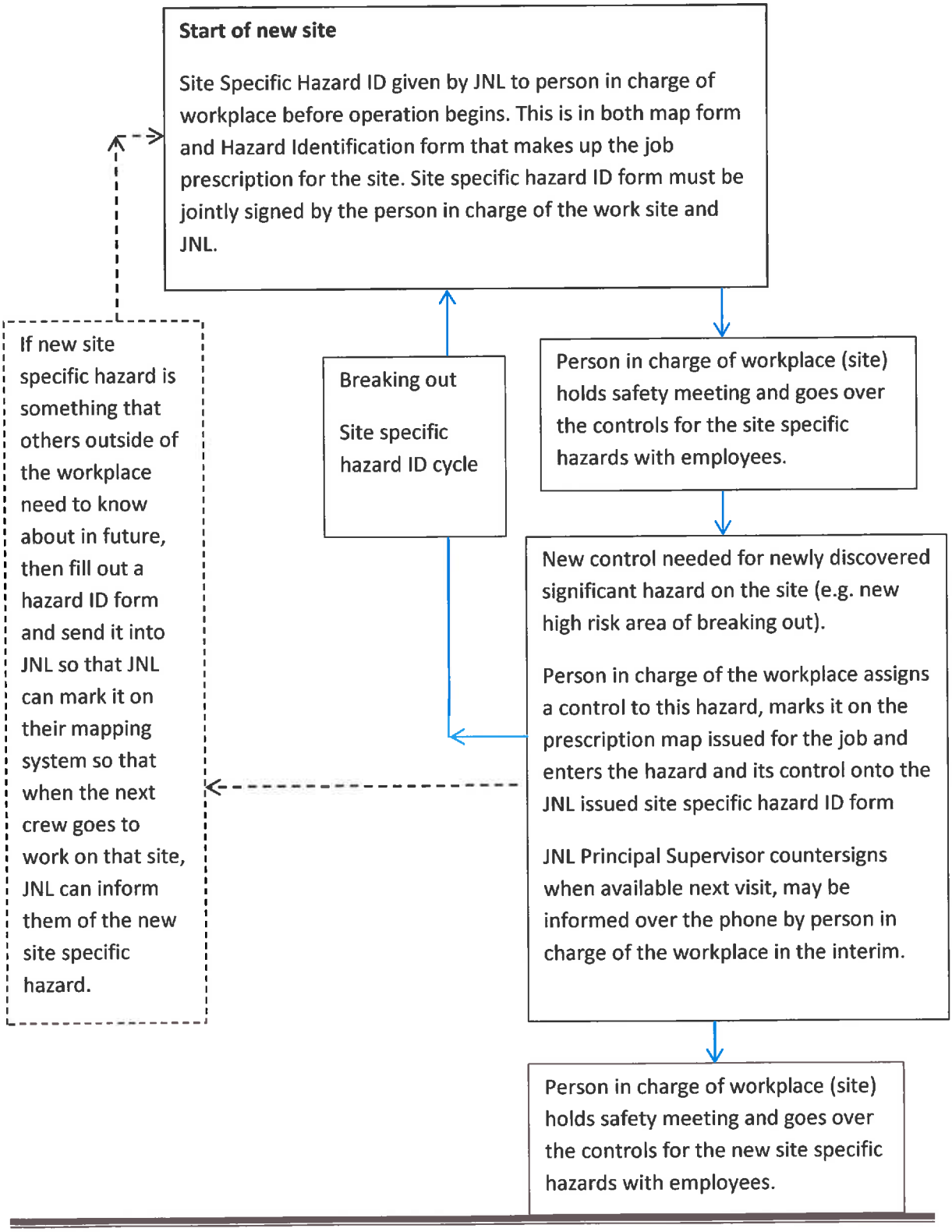
Prescriptions and Hazard Management Process for All Operations



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Operations Monitoring

Scope	Operations monitoring will apply to all forest operations where a prescription has been issued and where applicable to some Minor contract operations. If there is no significant environmental hazard present on the site the operation does not require a prescription number and monitoring processes pursuant to this in the JNL IMS server environmental drive.
Responsibilities	General environmental monitoring by contractors is expected as part of their daily business activity. JNL forestry staff supervising operations must ensure that routine and compliance monitoring checks are carried out as set out below, to ensure certainty in compliance and that any initiated Action Requests are signed-off.
Monitoring and Action Requests	Monitoring is recorded on the 'Operation Pre-planning Prescription & Monitoring' form. Any potential or actual adverse effect or non-conformance to a best practice, resource consent condition or health and safety should be considered for an Action Request to correct. Complete an Action Request form when any ***significant*** non-conformance is identified. An Action request can be written out for any operation regardless whether or not the operation has been issued a prescription number. Ensure the person to complete the action and a completion date is identified. The Supervisor and contractor must sign-off Action Requests when completed as soon as practical. All action requests are entered in the environmental server. On the Pre-operation Checklist Monitoring form, for any Action Request written, the Action Request form number occupies the 'date visited site' column.
Analyzing Operations monitoring	• IMS Coordinators conduct in-field audits as a cross-check of completed monitoring by checking those Prescriptions where any significant environmental issue had been identified on the Prescription. • At quarterly intervals, the IMS Coordinator shall analyze the summary to determine any trends or patterns of non-conformance. The summation of these are collated for IMS newsletters and the management review meeting.

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Example Prescription Sequence

1. Operational Monitoring Form

OPERATION PRE-PLANNING PRESCRIPTION & MONITORING

Operation: **Prescription number:**
Location: **Resource Consent Number**
Contractor/JNL Crew: **Prepared by:**

	YES/ NO or N/A	DATES VISITED						DATE FINAL MONITORING
Job preparation								
Health & Safety								
Site Specific Hazards identified on map								
Nearest Radio/cell ph coverage estb								
Traffic management plan rqmnts								
Nearest emergency location point								
Environmental								
Sensitive areas identified on map								
Neighbours & Stakeholders								
Noise / dust issues?								
Access agreements affected?								
Any recreational access issues?								
Stakeholder contact required								
Legal								
Operational boundary issues sorted?								
Special Licenses reqd roads/power wires)								
Operation								
Notification hazardous work								
Site Specific Special Conditions								
Tracking or temp stream crossings identified?								
Slash management diagrams separate page/s attached								
Special Resource Consent conditions attached								
Job sign off								
Site completed								
All reworks completed								
Water runoff managed								
Water tables clear								
Skid debris managed								
Wire ropes/rubbish removed								
Resource conditions met								
Site hazards still to be managed								
New site hazards entered into JNL register								
Corrective actions signed off								
Score by Action Request								%

New Documents Received	**Name/ Org**	**Date**	**Signed**

NB: Changes to a prescription requires a signature from both JNL supervisor & contractor

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2. Prescription Maps

Unit 4f: Section 6: Job Prescriptions & Hazards

Job Prescriptions - Here on the map, a new site specific high risk area of breaking out has been identified by the crew.

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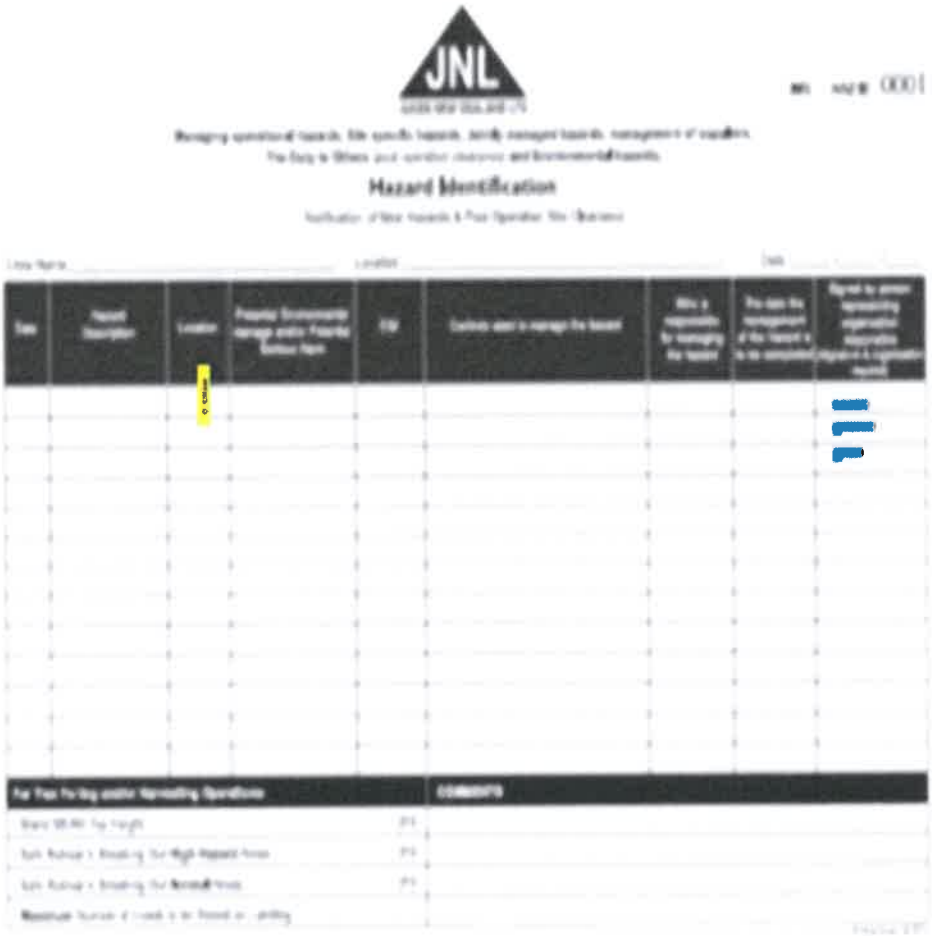
3. Prescription Site Specific Hazard Identification

Unit 4f: Section 6: Job Prescriptions & Hazards

– Job Prescriptions – This hazard and its control (safe retreat distance) is written up on the JNL hazard ID for the job



Hazard Identification

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4. (if required for the operation) Notification of Particular Hazardous Work

JNL will notify the Department Labour for its own operations and its contractors through the web site **http://www.business.govt.nz/worksafe/notifications-forms/particular-hazardous-work**

Notification of Particular Hazardous Work

Please mail or fax this form to the Department of Labour office as listed on the back of this form that is **closest to the site where the work is to be carried out**. Regulations 2 and 26 of the Health and Safety in Employment Regulations 1995 define notifiable work and set out who is responsible for making the notification. They are also quoted on the back of this form for your convenience. (If faxing this form, please return only the front page.)

Notification is hereby given under the Health and Safety in Employment Regulations 1995 in respect of the following work:

Nature of work (tick appropriate box):

- ☐ Scaffolding (all kinds).
- ☐ Buildings and structures over 5 metres.
- ☐ Use of a lifting appliance.
- ☐ Trench, shaft, pit, etc.
- ☐ Drive or heading.
- ☐ Excavated face over 5 metres.
- ☐ Use of explosives,
- ☐ Work in, or breathing, compressed air or air substitute
- ☐ Restricted work involving asbestos.
- ☐ Demolition.
- ☐ Other: .....
- ☐ Felling trees for logging.
- ☐ Tree felling for commercial firewood.
- ☐ Tree felling in land clearance.
- ☐ Tree felling in maintenance of horticulture shelterbelts.
- ☐ Tree felling in maintenance of overhead power lines.
- ☐ Tree felling in arboriculture
- ☐ Tree felling in silviculture.
- ☐ Tree felling for willow layering and other work in catchment areas.
- ☐ Tree felling involving wind throw.

Address of worksite: .....

Main access road: .....

Location: .....

Contractor/ Self-employed: .....

Address: .....

Contact: .....

Phone Fax:

Employer: .....

Address: .....

.....

Contact: .....

Phone: ..... Fax: .....

Certificate holder: .....

No.: .....

Phone: ..... Fax: .....

(Please name certificate holder when notifying scaffolding, diving, asbestos or use of explosives.)

Brief description of work: .....

Due date of commencement: ___/___/___ Estimated time to complete: .....

Date: ___/___/___ Signed: .....

(for employer)

Use of Action Requests

From our own experience 90% of issues requiring corrective actions will be resolved on the worksite without the need to formally issue corrective action paper work. However there needs to be in some cases a formal mechanism whereby action of a serious nature needs to be effected through the JNL principal, employer and or contractor relationships that exist contractually and prescriptively. Here action requests can work from the ground up (those on the job) and from the top down as everybody is accountable.

Actions requests therefore are used in the following ways.

1. Issued by JNL to a JNL crew or Contractor for corrective actions the JNL crew or Contractor needs to do. Examples are:

    i. As a result of operational monitoring or auditing there are prescription matters, IMS system or JNL policy matters that are defective and need correct action.

2. Issued by a JNL crew or Contractor to the JNL Principal for corrective actions JNL are to do.

    Examples are:

    i. Any case where another Principal or that Principal's employee behaves on the worksite in an unsafe manner. The JNL crew/Contractor is to take immediate action as they are in charge of the worksite but also report this formally through the use of the corrective action form to the JNL Principal. The JNL Principal will then deal with this issue with the employer.

1. Used to look at preventing promptly incidents by analysing trends.

NB: The following forms are used to administer the 9 blocks of Forestry IMS hazards:

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1. Managing Employee Hazards with pre-employment & Pre-engagement processes

Engagement & Induction Checklist Minimum Standard on site induction

Forest Division & Operation: _____

Legal Entity/Persons Name: _____ date: ____/____/____

Entity/Person (use √ or x where appropriate)	**Employee**	**Contractor**	**Person in charge of workplace**
HR package completed	*		
Pre-employment medical including drug test	*	*	
Pre-engagement competency test completed	*	*	
JNL contract agreement, schedules & IMS field folder issued			*
Copies of applicable licenses	*		
IRD number received	*	*	
Blank bank deposit slip received	*	*	
GST number received		*	
Fire Equipment present and compliant		*	
R/T sets compliant		*	
Tax exemption certificate received		*	
IR330 received (if paying withholding tax)		*	
Points of contact details received	*	*	
Public Liability ($5 million) & Fire Insurance ($1 million)		*	
Who to report to	*	*	
JNL approved working alone procedures	*	*	
On Site Employee Induction			
Who employee reports to/is supervised by			*
Employee's responsibilities			*
Start/finish times & smoko breaks explained			*
Site hazards & controls & location of hazard register			*
Safety data sheet location & critical safety rules explained			*
Site location, first aid kit, emergency procedures explained			*
Medical allergies, literacy, numeracy management discussed			*
Competency test completed & supervision requirements			*
Work plan & communications for the site explained			*
Incident reporting & incident register location explained			*
Location of fire equipment, & PPE, PPE register signed.			*
Early return to work & alternative duties			*
How to claim workplace compensation (ACC)			*

Entity's Representative's Name: _____ Signed: _____

Person in charge of the workplace Name: _____ Signed: _____

Employee's Name _____ Signed _____

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1. Managing Employee Hazards with pre-employment & on job training processes

On Job Employee Training Report & Competency Test Record

Trainees Full Name: Joseph Bloggs Crew Name: All Tree Logging Ltd No: 0002

Trainer: T. Trainer

Location: CPT 7 Black Forest Date: 7 - 1 - 04

Record in detail what training was given by utilising the headings below

TASK: Tree Felling

Circle reason for visit: (Assessment) Competency Test On job training

	Training Time	Units
OBSERVED: *(What was seen, positive, negative)* Good tree assessment and location of escape routes. Scarf & Back cut good.	1	17766
Correct method selected. Does not retreat up escape route to safe area once back cut completed.		
Does not look up as tree falls, looking at feet and where he walks.		
DISCUSSED: *(What was talked about to improve observations)* Hazards, when trees fall and why it is important to retreat to pre	5	
determined escape path.		
DEMONSTRATED: *(What was shown by the trainer)* Procedure for retreating down escape path and looking up.	2	
Demonstrated bore and release cuts and the use of wedges to assist felling	3.5	
RECOMMENDATION: *(What can be done to improve)* Joe is progressing well, but still requires supervision at all times.		
Focus on escape path and retreat. Ensure you use a range of cuts to improve skills, re: Tree Felling.		

Signed. Trainee Joe Bloggs Signed. Trainer T. Trainer

Signed. Contractor T. Contractor

The Trainee and the Contractor must sign this time sheet. The Contractor and Trainee must be given a copy. The third copy is for your own records.

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2. Managing Operational Hazards.

HAZARD REGISTER (note, all hazards in the register are regarded as significant)

Hazards	Hazard no.	Potential Serious Harm	EIM	Control	Reason for Review
Lack of Rest	G01	Death	I	Build short frequent rest breaks into your routine. Take at least two evenly spaced 30 minute rest breaks during the working day.	Accident 09.11Fatality 10.10.01
Hot days	G02	Dehydration, fatigue injuries, melanoma	M	Use sun block and sun hat to reduce sun exposure. Annual medicals to check for melanomas. Ensure adequate fluid intake is maintained during the working day.	10.12.02 Safety meeting, summer month work period begins
Water runoff	E01	Erosion Erosion	M M	Provide cut-outs from rip and mound that drain onto ridgelines or into water tables. Ensure water tables and culverts are clear and free to run post rehabilitation of skids	Environmental incident 23.11.01
Sailors	TF01 TF02	Death, Crush injuries, impalement	M	Always have a clear escape route Use an observer Check immediate working area constantly for potential sailors before felling commences.	01.03.01 Fatality

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2. Managing operational hazards: Personal Protective Equipment Issued.

A register of personal protective equipment will be kept for all JNL employees

Name	Dept/Crew	PPE Type	Date Issued	Invoice Number	Cost

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Managing hazard categories 3,4,5,7 & 9. **IMS - HAZ ID 0001**

Managing Site specific hazards, Jointly managed hazards, management of suppliers, the Duty to Others and Environmental hazards.

HAZARD IDENTIFICATION & NOTIFICATION OF NEW SITE SPECIFIC HAZARDS

Crew Name_____ **Location**_____ **Date**_____/_____/_____

Date	New Hazard description	Location	Potential Environmental damage and/or Potential serious harm	EIM	Controls used to manage the hazard	Who is in responsible for managing the hazard	The date the management of the hazard is to be completed	Signed by person representing organization responsible. (signature & organisation required)

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5. Management of Suppliers:

Prior to engagement of a contractor or subcontractor, a comprehension test will be applied to test for health and safety management competency and the ability of the contractor to apply JNL's IMS. A reference check of previous clients worked for will be sought and copies of other relevant qualification and work experience obtained.

If selected to work for JNL a file will be constructed holding these contractor details and the sign off of competency completed on the Competency Assessment Test for Contractor, Crew Manager/Foreman, 2IC & 3IC. NB: A sign off of competency is only complete once a successful audit of implementation of the IMS has been completed on the Contractor's operation in the field.

The Contractor is issued a contract and inducted and all relevant personal and pay details received prior to any work commencing.

A Contractor may not engage a subcontractor with JNL's permission. The same competency test will be completed for a sub-contractor as that for a Contractor.

Refer to IMS Manual Section 2 for supplier engagement process.

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5. Management of Suppliers:

Competency Assessment Test for A Person in Charge of a Workplace Supervisor, Contractor, Crew Manager/Foreman & 2IC FSC ver 5.7 – 7.3.1

Candidate Name:_____ Entity Crew:_____

Assessed by:_____ Date: _____

Knowledge of training and supervision requirements	
• Demonstrates the knowledge that people are to be under documented training and constant one-on-one supervision until deemed competent?	
• Demonstrates the knowledge of what documents and procedures are required to be maintained, both for skills training and for deeming people competent?	
Knowledge of prescription, specifications and site specific hazards	
• demonstrates the knowledge of Prescription requirements	
• demonstrates the knowledge of Job requirements and standards	
• demonstrates the knowledge of site hazards present	
Knowledge of the work-plan and task/process site specific hazards	
• demonstrates the knowledge of operational hazards management	
• demonstrates the knowledge of the site work plan	
Knowledge of the trucking schedules and log stock reporting requirements (where applicable)	
• demonstrates ability to correctly call in log stocks	
• demonstrates knowledge of trucking schedules	
Knowledge to run a Safety Meeting	
• demonstrates understanding on meeting purpose	
• can maintain meeting minutes	
Knowledge of handling the duty of care to others (i.e. visitors)	
• Can explain on site requirements to visitors – safe areas, emergency procedures, hazards on site etc.	
• can maintain a visitors sign-in book	
Knowledge of an individual's duties	
• Follow and practice safe work methods	
• Discourage and prevent if necessary others working in an unsafe manner	
• Know responsibilities in an emergency and how to seek appropriate assistance	
• Report and rectify unsafe working conditions and equipment	

• Accurately report and investigate incidents	
• Know how to use, store, maintain and get replacement PPE	
• To provide informed consent for drug testing, medical monitoring and any other personal information for the purposes of administering HSE.	
• Correctly use any instruction given.	
Knowledge of duties as employer	
• Knowledge of both Employer and JNL Drug and Alcohol Testing Programme requirements.	
• Knowledge of both Employer and JNL requirements for Emergency Response – accident, fire, chemical spill etc.	
• Knowledge of both Employer and JNL procedures for reporting and investigating incidents.	
• Knowledge of both Employer and JNL self-auditing and inspection process.	
• Knowledge of HSNO management	
• Understanding of FSC Principles	
Personal attributes	
• Carries out effective communication	
▪ Ability to effectively multi-task	
Person in Charge of a Workplace: Can capably implement JNL's IMS	
▪ Understands how to implement the IMS	
▪ Has demonstrated implementation of IMS (JNL has audited this in the field)	
Person competent to audit to IMS standard • Is competent to sign off a person in charge of a workplace as competent to implement the IMS	

General Comments: (any supporting comments)

I verify that _____ (name) has been assessed as a person competent to manage and supervise operations and personnel for _____ (name of Entity)

Signed: _____ (person conducting assessment)

Signed: _____ (Person assessed)

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6. Hazardous Substances Management

A hazard register will be kept for all hazardous substances held on the worksite. Example

Substance	CAS	UN	Separation distances (substances)	Separation distances (ignition sources)	Approved handlers	Location Test Certificate	Stationary Container Test Certificate	Periodic Certificate	Fire Extinguishers	Level 3 Emergency Management	Secondary Containment	Emergency Signage	Tracking	Transport	TEL,EEL
Petrol		1203	Don't store with spray cans, LPG, oxygen, acetylene – keep 3 meters away	3 meters	Required over 100 Litres	Not required but subject to conditions	Required over 1000 Litres	Not required	2 fire extinguishers required	Required at 2,000 Litres or over	Bunding requirement? See Dpt Lbr for ruling	Required at 2,000 Litres and over	Nil	Nil restrictions	TEL & EEL applicable; container spills on soil or waterways

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6. Hazardous Substances Management

Safety data Sheets (SDS) will be held on site and made available to all employees and others. Information from SDS will also contribute to the development of emergency procedures including first aid responses.

AGPRO

SAFETY DATA SHEET

AGPRO NZ Limited
PO Box 58-963,
Greenmount, AUCKLAND
Ph: 09 273 3456 Fax: 09 273 3457
Website: www.agpro.co.nz
This SDS consists of 16 sections.

Page 1
Effective Date: 10/02/10

AGPRO Glyphosate 360

1. SUBSTANCE IDENTIFICATION:

AGPRO Glyphosate 360

SUPPLIER NAME:	AGPRO NZ Limited		
SUPPLIER CODE:	None		
SUPPLIER ADDRESS:	10 Polaris Place, East Tamaki, Auckland.		
SUPPLIER PHONE:	09 273 3456	SUPPLIER FAX:	09 273 3457
EMERGENCY PHONE:	0800 POISON		
CHEMICAL FAMILY:	phosphono methyl glycine	USE:	Non-selective systemic herbicide

2. HAZARDS IDENTIFICATION:

Hazard Classes: 6.1D, 6.4A, 9.1B
Refer to Section 15 for ERMA Requirements.

3. COMPOSITION / INFORMATION ON INGREDIENTS

COMMON NAME	CAS NUMBER	CONCENTRATION
glyphosate isopropylammonium	38641-94-0	360g/L
tallow amine ethoxylate	61791-26-2	<200g/L

Approved Handlers

All JNL agrichemical application operations will have an Approved Handler on site at all times and the comply with industry best practices and comply with the NZ Standard for Management of Agrichemicals *NZS 8409:2004*

WorkSafe NZ's HASNO for Forestry Guidelines.

All other operations dealing with hazardous substances and new organisms will abide by the WorkSafe NZ's HASNO for Forestry guidelines and any other relevant code of practice that dealing with addressing this legislation.

7. Managing the Duty to Others: Visitors

A Register will be maintained for all visitors to the worksite detailing their time of arrival and departure (if they are not escorted whilst at the site), detailing explanations of the hazards that exist on the site, no go areas and safe zones.

Visitors Register

Date	Visitor Name	Safe Zones Explained	No go Zones Explained	Site Hazards Explained, Site Specific Hazard Form Signed Y/N	Accompanied Y/N By Whom	Visitor Sign In	Time	Visit or Sign Out	Time

Crew Name_____ **Location**_____ **Date**_____/_____/_____

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8. Notification of Hazardous Work

JNL will notify the Department Labour for its own operations and its contractors through the web site **http://www.business.govt.nz/worksafe/notifications-forms/particular-hazardous-work**

Notification of Particular Hazardous Work

Please mail or fax this form to the Department of Labour office as listed on the back of this form that is **closest to the site where the work is to be carried out.** Regulations 2 and 26 of the Health and Safety in Employment Regulations 1995 define notifiable work and set out who is responsible for making the notification. They are also quoted on the back of this form for your convenience. (If faxing this form, please return only the front page.)

Notification is hereby given under the Health and Safety in Employment Regulations 1995 in respect of the following work:

Nature of work (tick appropriate box):

- ☐ Scaffolding (all kinds).
- ☐ Buildings and structures over 5 metres.
- ☐ Use of a lifting appliance.
- ☐ Trench, shaft, pit, etc.
- ☐ Drive or heading.
- ☐ Excavated face over 5 metres.
- ☐ Use of explosives,
- ☐ Work in, or breathing, compressed air or air substitute
- ☐ Restricted work involving asbestos.
- ☐ Demolition.
- ☐ Other: .....
- ☐ Felling trees for logging.
- ☐ Tree felling for commercial firewood.
- ☐ Tree felling in land clearance.
- ☐ Tree felling in maintenance of horticulture shelterbelts.
- ☐ Tree felling in maintenance of overhead power lines.
- ☐ Tree felling in arboriculture
- ☐ Tree felling in silviculture.
- ☐ Tree felling for willow layering and other work in catchment areas.
- ☐ Tree felling involving wind throw.

Address of worksite: .....

Main access road: .....

Location: .....

Employer: .....

Address: .....

.....

Contact: .....

Phone: ..... Fax: .....

Contractor/
Self-employed: .....

Address: .....

Contact: .....

Phone Fax:

Certificate holder: .....

No.: .....

Phone: ..... Fax: .....

(Please name certificate holder when notifying scaffolding, diving, asbestos or use of explosives.)

Brief description of work: .....

Due date of commencement: __/__/__ Estimated time to complete: .....

Date: __/__/__ Signed: .....
(for employer)

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Documentation that should be held on site by all operators

	Column 1 Harvesting Silviculture Quarrying	* Column 2 trucking, roading, engineering, self employed
1. Health and Safety Policy and Management Plan	√	HSE Policy only & drivers procedures (Gisborne)
2. Record of Achievement and training plans	√	Principal only
3. Licenses	√	√
4. Records of induction, on job training, competency tests	√	Principal only
5. Site Specific Hazard ID & Operational Hazard Register	√	Principal only
6. Notification (to others) of new hazard forms	√	Principal and log cartage operators
7. HSNO register & Safety Data Sheets (SDS)*	√	Principal only (only if substance not stored)
8. Accident register (on the prescribed form)	√	Principal only
9. Safety meeting minutes	√	Principal only
10. Operational audits record of last two as a minimum	√	Principal only
11. Traffic management plans where applicable	√	√
13. Approved Code of Practice for Forest Operations (ACOP)	√	Principal only
14. Prescription for the current job	√	√ where applicable
15. Verification of immigrant labour passport bio page & current work permit	√	√
16. JNL IMS Crew/contractor pack	√	Principal only
17. Visitors register	√	Non applicable
18. Machine certification plates	√	√ Roading/engineering
19. Machine Maintenance Records	Principal only	Principal only
20. NZFOA Environmental Code of Practice for Plantation Forestry	√	Principal only
21. Tree falling policy	√	Non applicable
22. Breaking out policy	√	Non applicable

*SDS – must be in English and have 16 sections to it or it is not recognised in NZ and be <5 years old.
(Environmental Protection Agency Requirement) HSNO ID regulations 2001 states must be available in 10 minutes so compulsory on site requirement.

* If self-employed becomes an employer or pays for subcontractor then duties will apply in column 1.

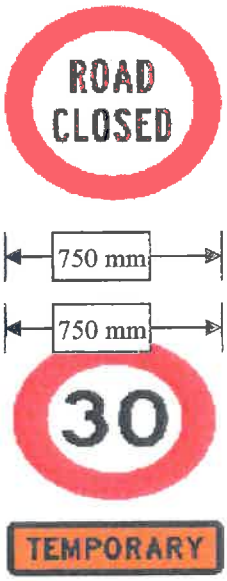
ROAD SIGNAGE FOR OPERATIONS ON A FOREST ROAD

Advanced Warning – Warns drivers that they are approaching an operation on or adjacent to the road.

Position on the left hand side of the road, off the running surface.
Placement shall ensure a minimum of 50m sight distance before sign.

Placement must be at least 75m before physical road closure.
Dimensions of hazard sign to be 750mm x 750mm.
Dimensions of Tree Felling sign to be 950mm x 500mm.
The centre of the hazard sign should be 1.5m above ground level.

Direction/Protection – Instructs the driver on how to respond before reaching the hazard.



Road Closed - This sign MUST appear when the road is closed with no intention of allowing temporary access.
The sign may appear as a stand alone sign or may appear on a banner or barrier.
The sign is positioned in the middle of the road. A full road-width banner, tape or other barrier **MUST** accompany this sign.
Diameter of sign to be 750mm.

Temporary Speed Limit - This sign is used where traffic must be slowed while approaching, passing through or around a hazard.
This sign will be present at the approach to a skid site to allow vehicles to stop safely.
Speed limit sign must be a minimum of 750mm diameter.
Supplementary "Temporary" sign must be 950mm x 300mm.

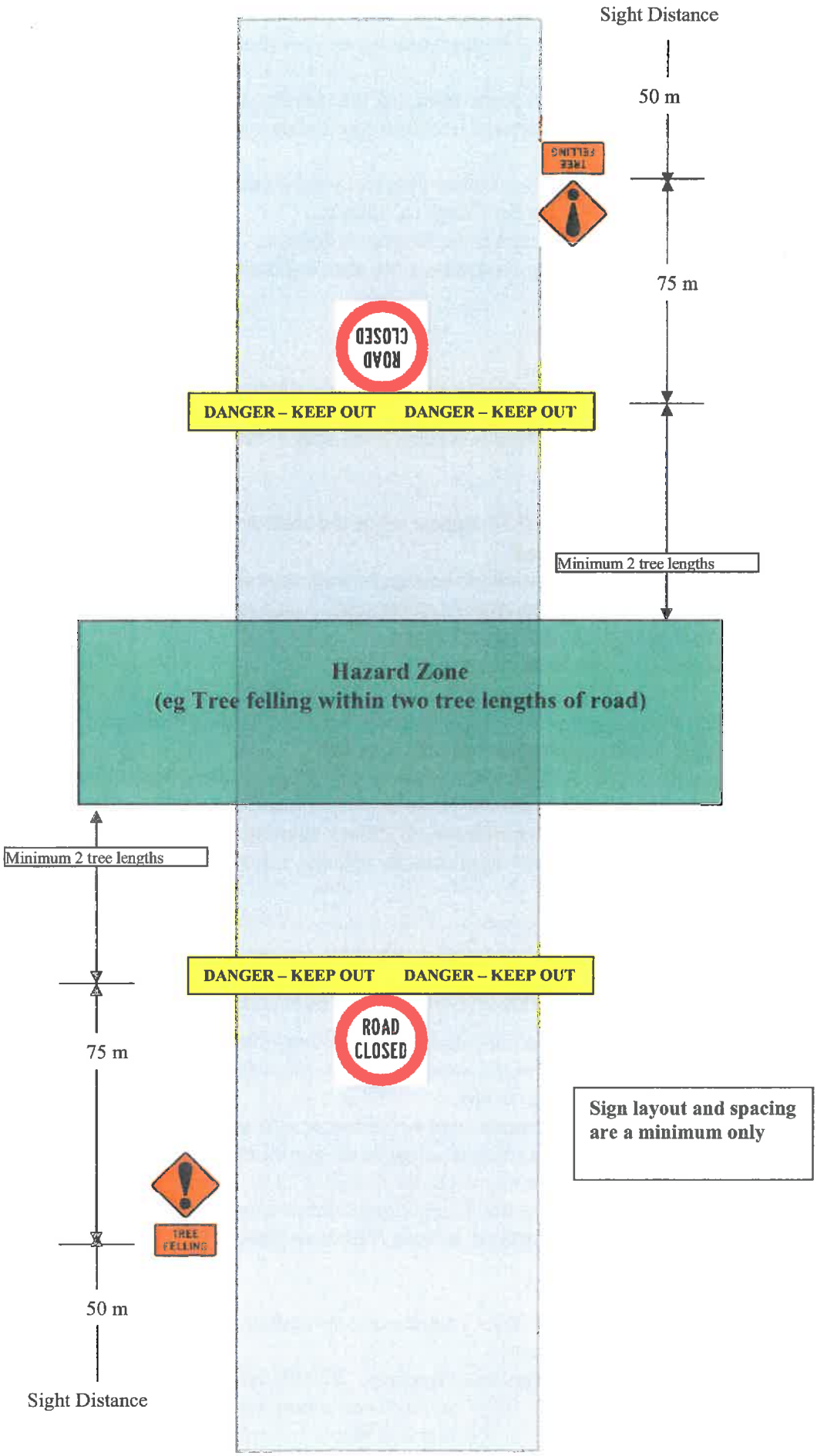
Banner

The banner must include a high visibility component contained within the vehicle carriageway. To be considered as the high visibility component, tape must be at least 100 mm wide and of a visible colour.
The banner, tape or barrier should extend the full width of the road surface to a height of approximately 1-1.5m.
The banner must be placed at least two tree lengths from the edge of the Hazard Zone.The banner may have the Road Closed sign incorporated in its design (see above) but Advanced Warning sign must be erected at least 75m from banner.

Temporary Road Closure

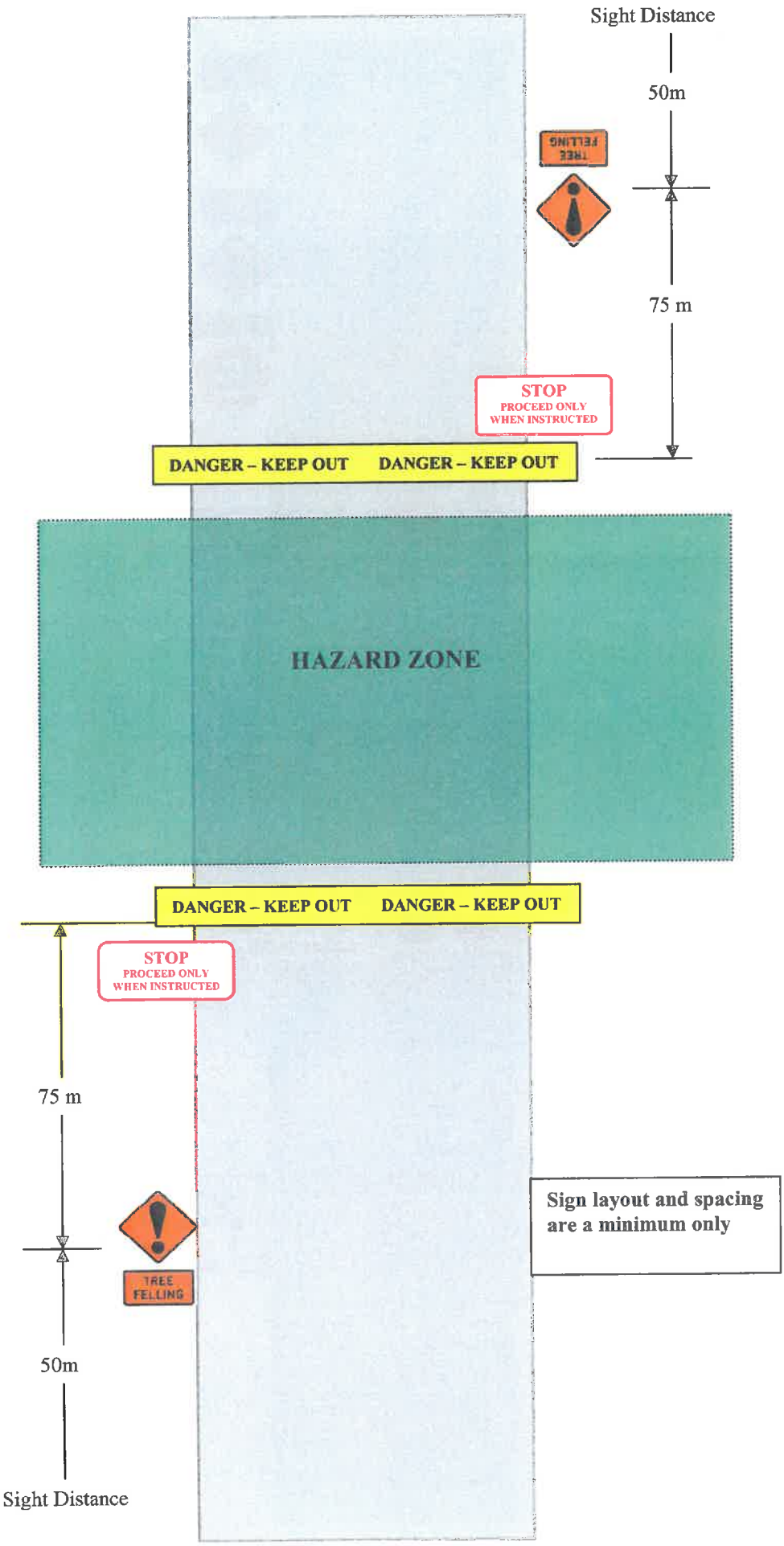
This sign MUST appear at a temporary unmanned or manned road closure.
The sign has two elements; "STOP PROCEED ONLY WHEN INSTRUCTED" and a lower instruction panel.
If the sign is not manned then a full road width banner, tape or other physical barrier. (Full specifications for sign available on request)

TMP 1: Sign layout for tree felling within two tree lengths of forest road



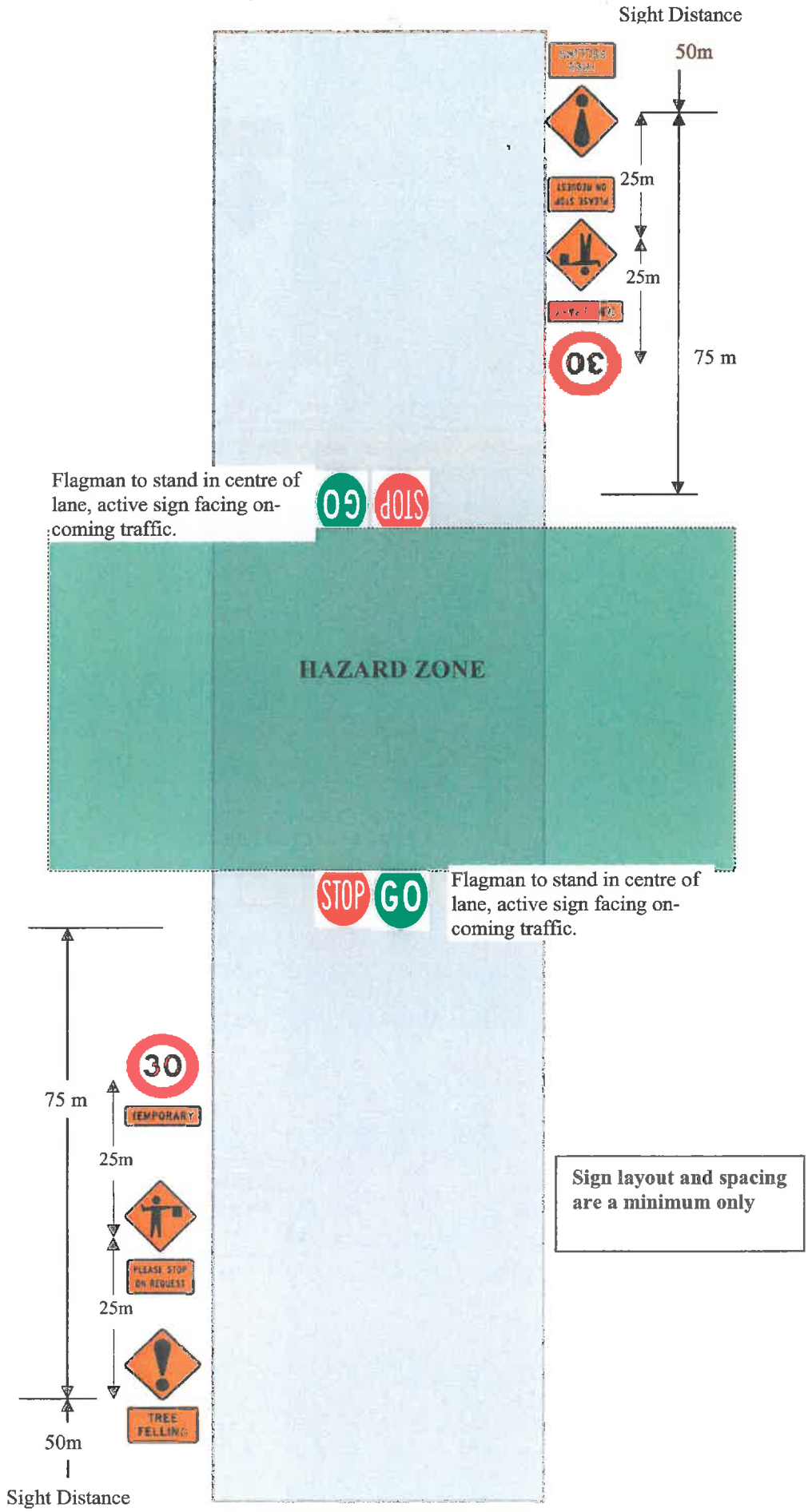
TMP 2: Sign layout for temporary road closure (Unmanned) – thoroughfare required

(Note – Sign spacing is a minimum and stated distances are for forest roads or roads with 50km/h speed limit)

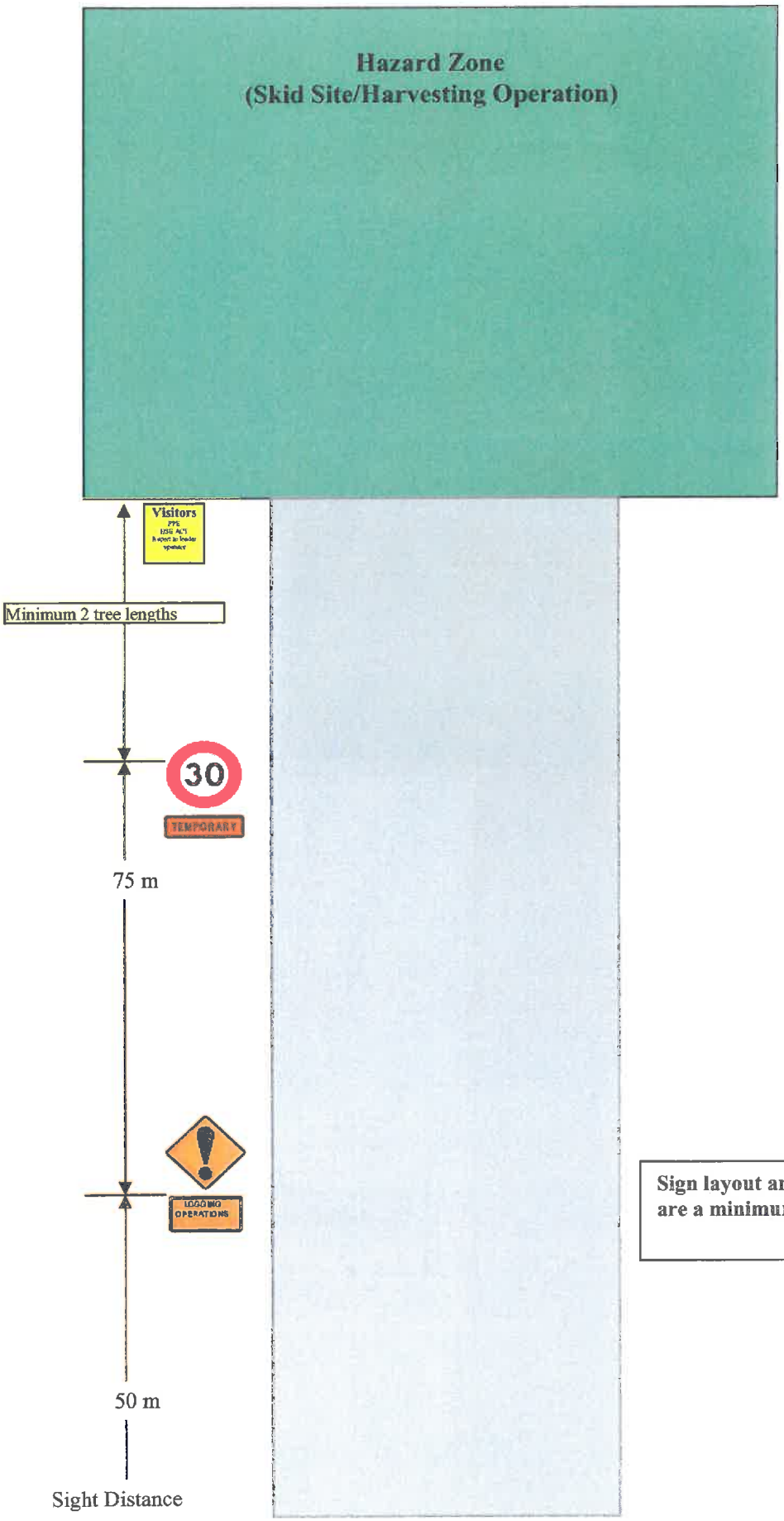


TMP 3: Sign layout for temporary road closure (Manned) – thoroughfare required

(Note – Sign spacing is a minimum and stated distances are for forest roads or roads with 50km/h speed limit. Stop/Go sign is manned at all times of road closure)

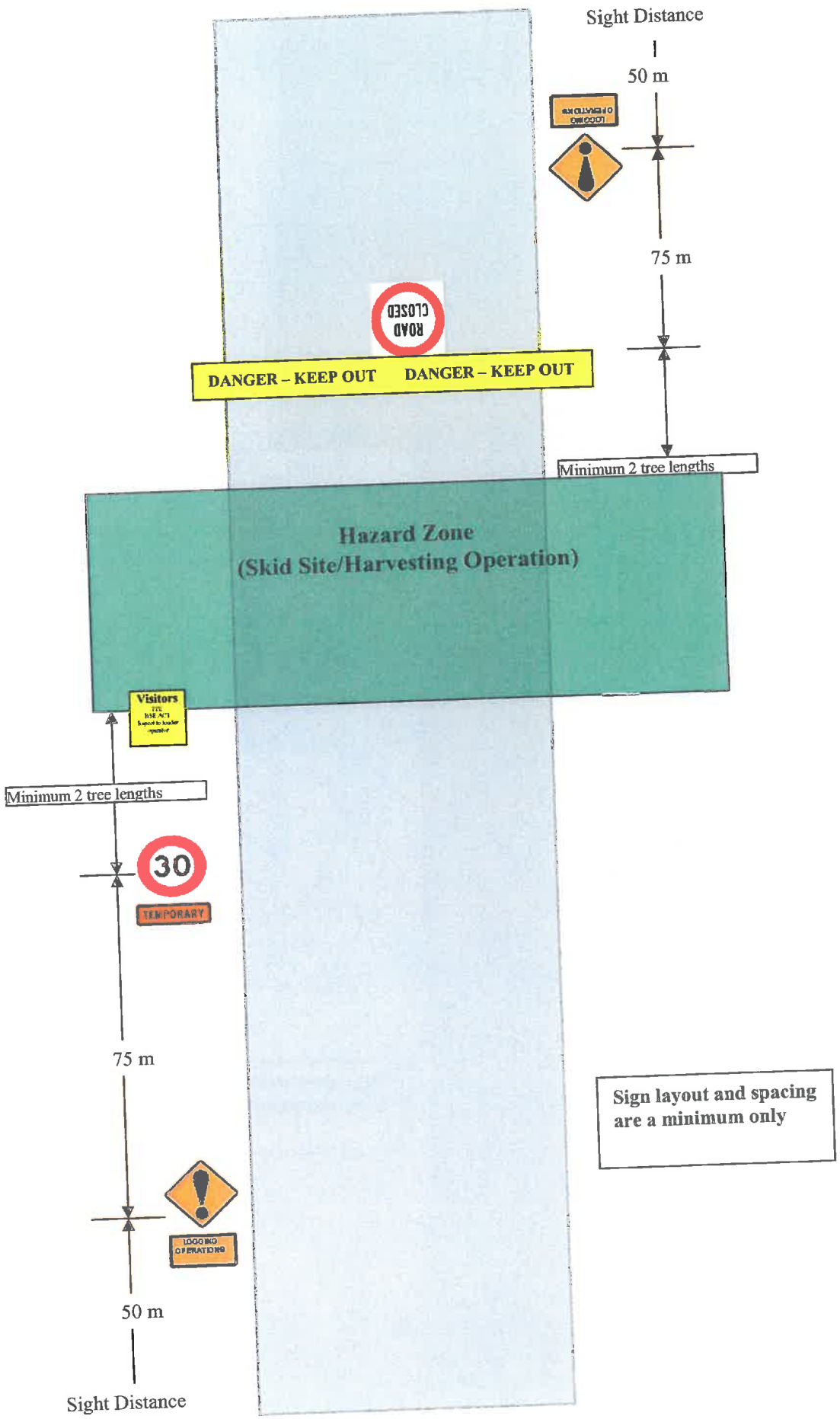


TMP 4: Sign layout for logging operations – no thoroughfare required, Stub road



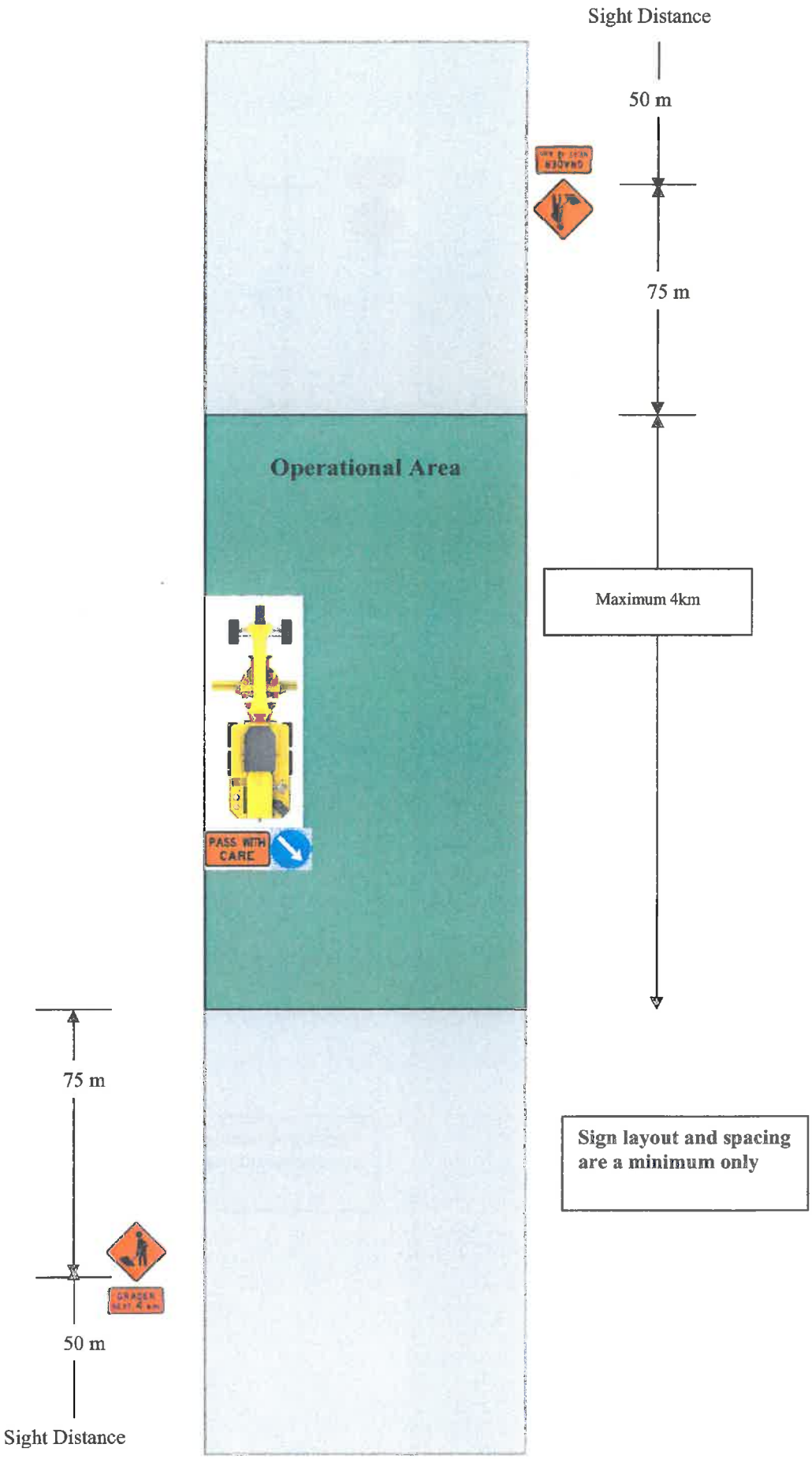
Sign layout and spacing are a minimum only

TMP 5: Sign layout for logging operations – no thoroughfare required

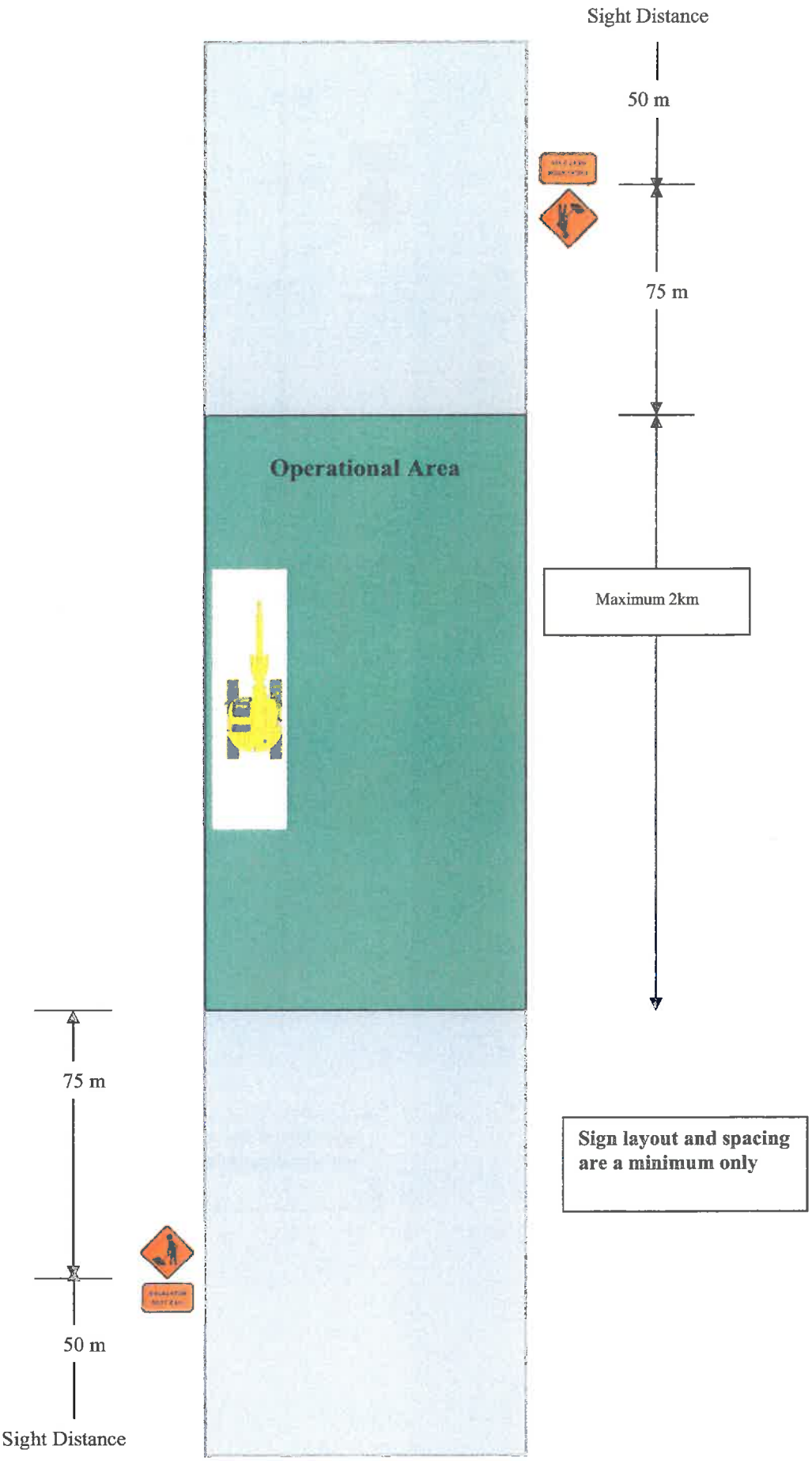


Sign layout and spacing are a minimum only

TMP 6: Sign layout for mobile operation on forest road – Grader, Mower etc

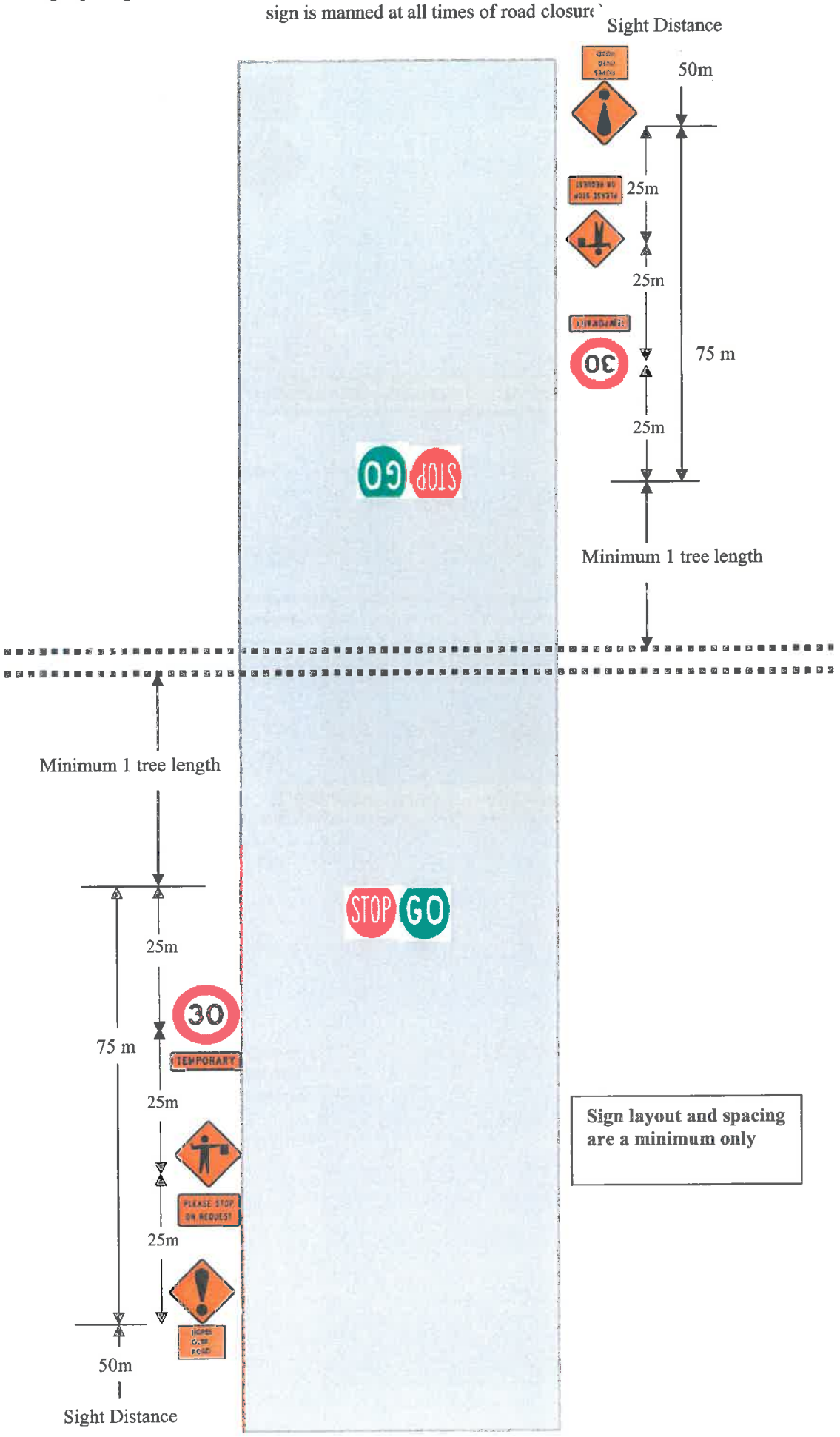


TMP 7: Sign layout for mobile operation on forest road - excavator



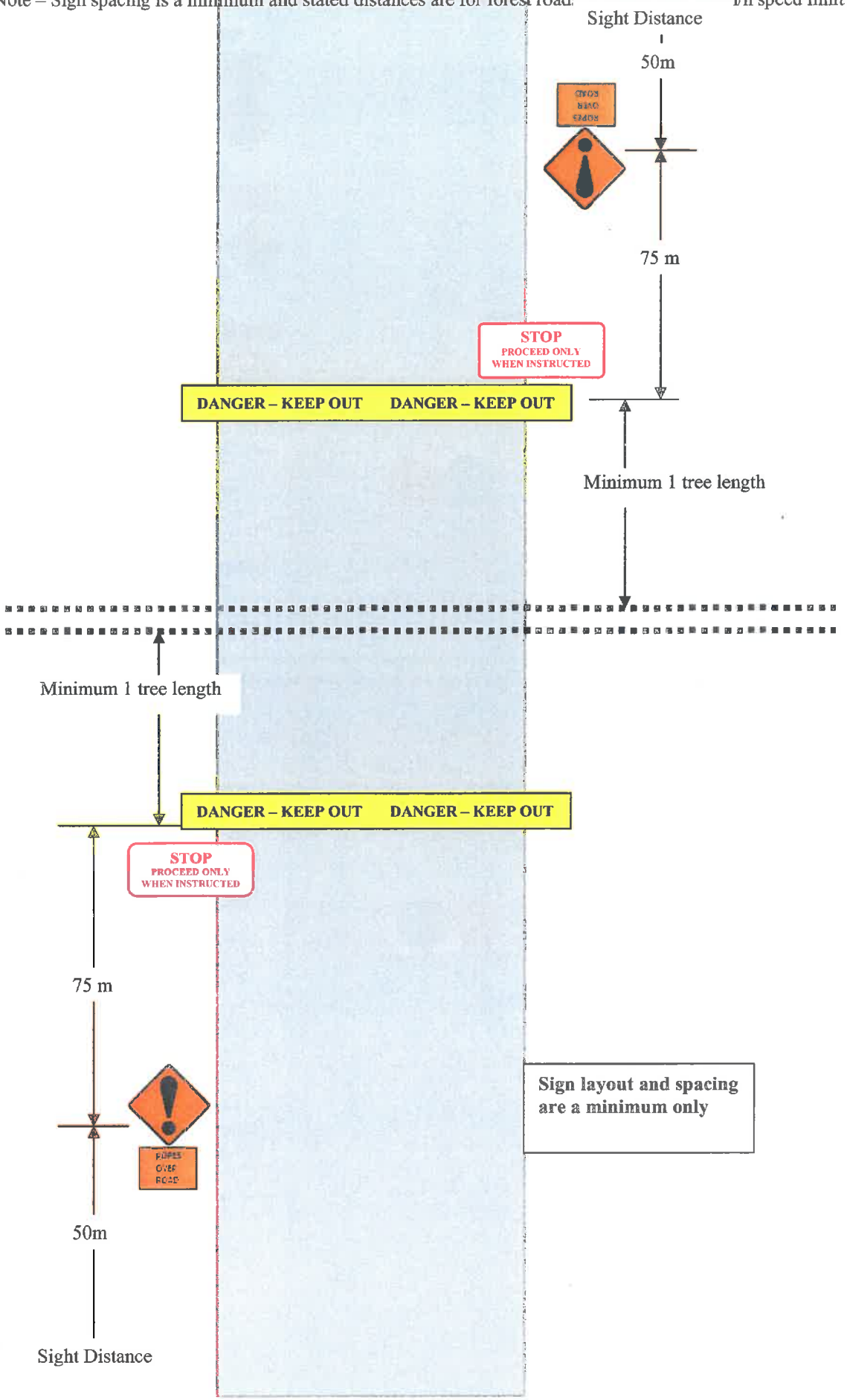
TMP 8: Sign layout for Ropes over Road (Manned) – thoroughfare required

(Note – Sign spacing is a minimum and stated distances are for forest roads or roads with 50km/h speed limit. Stop/Go sign is manned at all times of road closure)



TMP 8: Sign layout for Ropes over Road (Unmanned) – thoroughfare required

(Note – Sign spacing is a minimum and stated distances are for forest roads or roads with 50km/h speed limit



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SECTION 3:

INFORMATION, TRAINING AND SUPERVISION

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IMS Components for Information, Training and Supervision. *NB: refer to HSMS for trainer selection guidelines.*

A. Competency Testing, Persons in charge of a workplace and employee competency tests.

1. Information, training and supervision requirements start with the JNL/contractor pre-engagement process and subsequent competency test applied to the prospective contractor (refer to Management of Suppliers in Section 2 of the IMS Manual).
2. If the contractor is absent from the worksite there must be a competent person left in charge of the workplace at all times. The same competency test that is applied to the contractor is applied to the person to be left in charge of the workplace. **(see pages 6-7 of this section for competency test)**
3. If a new employee starts, he/she must be competency tested immediately he/she starts work, regardless if fully qualified for task or not. **(The Employee Training Report & Competency test record form on page 8 is used for this or its equivelent)**
4. Thereafter all employees will have periodic documented competency tests on the tasks they are performing at least quarterly If fully qualified for task and the employee is found to be deficient in either knowledge or practical application of the task then the person in charge of the workplace must place that employee back into the training and supervision requirements as depicted in the IMS flowchart in this section.
5. The same goes for post incident investigation where training has been identified as a contributing hazard factor.
6. All on job training for employees will be documented on an 'Employee Training Report' (or one similar with the equivalent outputs) with the time spent training on each task component accurately documented.
7. Registered trainers visiting crews for on job training must also document their training to this minimum standard.
8. First aid certification renewals are monitored by the office administrator whilst other certification renewals such as Growsafe and Quarry Managers certifications for example will be the individual's responsibility to ensure they are kept current. JNL will periodically audit this requirement.

B Safety Meetings

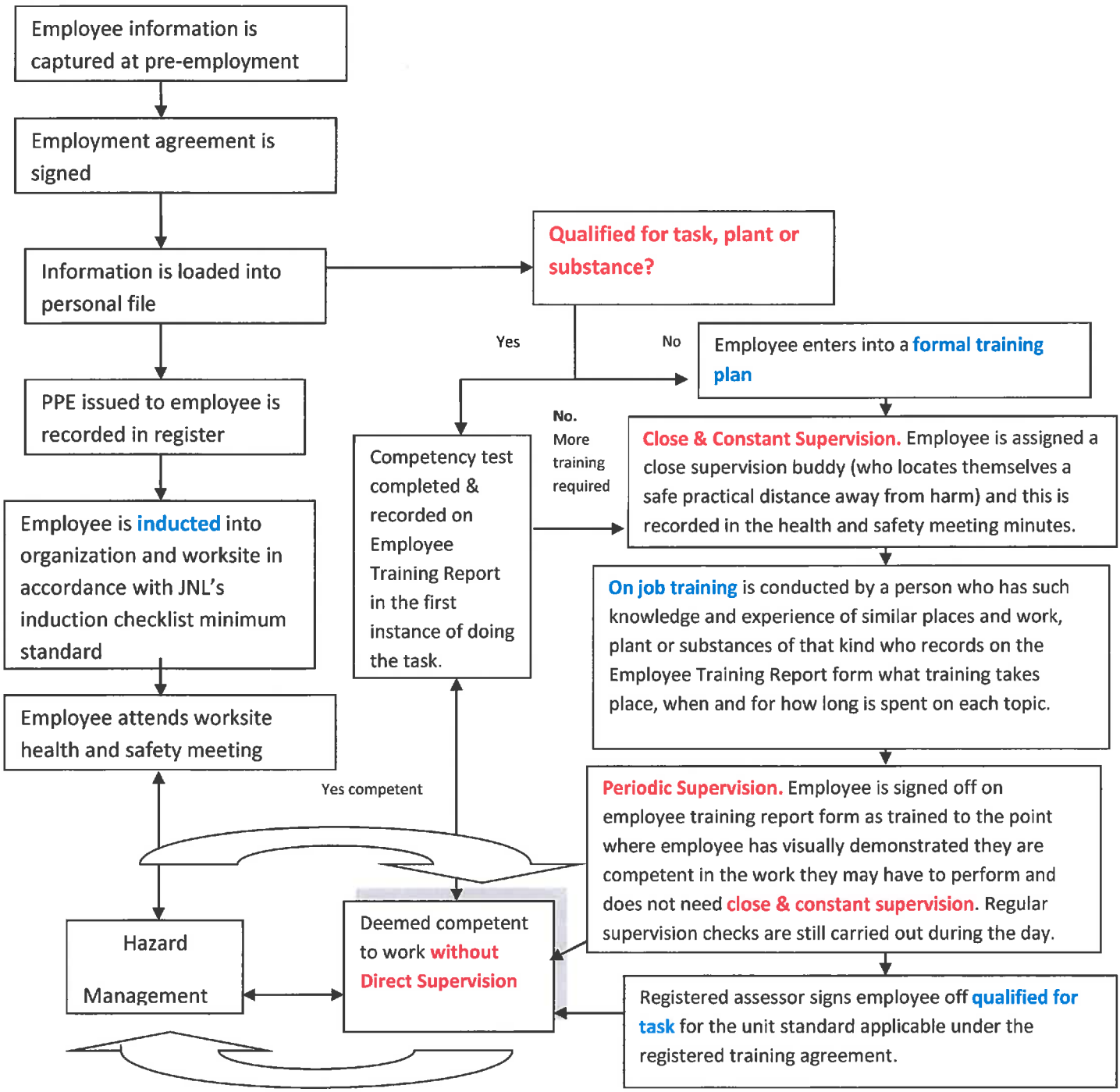
1. Safety meetings are to have the minimum content as depicted in the example form page 9.

2. Generic hazard review for the site (that is operational hazards relevant to the site that may need special attention) can be described in the safety meeting minutes. The hazard identification form is for notification of new site specific hazards, not operational hazard identification review. This is already catered for by operational hazard registers held on site.

3. JNL prescriptions for the job with map of the area to be worked with site specific hazard identification from JNL to the crew is a component of the information sharing process.
4. A safety meeting must be held post incident to inform employees of the hazard review conducted and any new or change to existing controls that require implementation.
5. A safety meeting must be held when a new site specific hazard is discovered to inform employees of the hazard review conducted and any new or change to existing controls that require implementation. This is entered onto the hazard ID form and a copy sent to JNL so JNL can map this hazard and inform others who may subsequently be on this site.
6. For JNL crews, new operational hazards and their controls need to be filed with the JNL office as well so that the JNL crew on sight hazard register can be updated and redistributed.

JNL Employee Information Training and Supervision: Single or multiple Task, Plant or Substance

The following procedure is to be followed for all new and existing JNL employees. Contractors and/or Subcontractors are expected to have this standard of process as a minimum. *"Employers shall ensure that a competent person is in charge of each operation and shall supervise & ensure work is supervised and performed in a safe manner" (ACOP)*



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Minimum Components for Training & Supervision

1. **New employee not qualified for task.**

a. Employee induction record to JNL's minimum standard.

b. Training plan for employee with timeline of achievement required for qualification for task.

c. Minimum on job training record content

-Describe the hazard and its control

-State either competent or not yet competent to implement the hazard control

-State length of time spent training on each hazard component of the task

-State what stage of supervision the employee is in which is either;

close and constant supervision or;

periodic supervision or;

competent to work without direct supervision

d. Employee eventually signed off as competent to work under periodic supervision and is awaiting assessment for unit standard where these unit standards exist.

e. Where unit standards for the task partially exist or do not exist, employee is eventually signed of as competent to work without direct supervision.

2. **New employee or existing employee qualified for task not yet subjected to IMS minimum standard**

a. Employee induction record to JNL's minimum standard.

b. Competency test hour one day one of starting the task or starting a new task not previously competency tested for but qualified.

c. State what stage of supervision the employee is in which is either;

close and constant supervision or;

periodic supervision or;

competent to work without direct supervision

NB: Where a qualified for task employee fails a competency test the employee re-enters the training and supervision cycle until deficiencies are corrected.

NB: The following forms (or their equivalents) are used in the IMS for this Information, Training & Supervision section.

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Engagement & Induction Checklist Minimum standard on site induction

Forest Division & Operation:_____

Legal Entity/Persons Name:_____date:_____/_____/_____

Entity/Person (use √ or x where appropriate)	**Employee**	**Contractor**	**Person in charge of workplace**
HR package completed	*		
Pre-employment medical including drug test	*	*	
Pre-engagement competency test completed	*	*	
JNL contract agreement, schedules & IMS field folder issued			*
Copies of applicable licenses	*		
IRD number received	*	*	
Blank bank deposit slip received	*	*	
GST number received		*	
Fire Equipment present and compliant		*	
R/T sets compliant		*	
Tax exemption certificate received		*	
IR330 received (if paying withholding tax)		*	
Points of contact details received	*	*	
Public Liability ($5 million) & Fire Insurance ($1 million)		*	
Who to report to	*	*	
JNL approved working alone procedures	*	*	
On Site Employee Induction documented & signed			
Who employee reports to/is supervised by			*
Employee's responsibilities and who is the HSE Rep			*
Start/finish times & smoko breaks explained			*
Site hazards & controls & location of hazard register			*
Safety data sheet location & critical safety rules explained			*
Site location, first aid kit, emergency procedures explained			*
Medical allergies, literacy, numeracy management discussed			*
Competency test completed & supervision requirements			*
Work plan & communications for the site explained			*
Incident reporting & incident register location explained			*
Location of fire equipment, PPE maintenance, storage & use, PPE issue register signed.			*
Early return to work & alternative duties			*
How to claim workplace compensation (ACC)			*
IMS induction & Employee Participation System			

Entity's Representative's Name:_____Signed:_____

Person in charge of the workplace Name:_____Signed:_____

Employee's Name_____Signed_____

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Forms Used for Information, Training & Supervision.

Competency Assessment Test for A Person in Charge of a Workplace Supervisor, Contractor, Crew
Manager/Foreman & 2IC FSC ver 5.7 – 7.3.1

Candidate Name:_____ Entity
Crew:_____

Assessed by:_____ Date: _____

Knowledge of training and supervision requirements	
• Demonstrates the knowledge that people are to be under documented training and constant one-on-one supervision until deemed competent?	
• Demonstrates the knowledge of what documents and procedures are required to be maintained, both for skills training and for deeming people competent?	
Knowledge of prescription, specifications and site specific hazards	
• demonstrates the knowledge of Prescription requirements	
• demonstrates the knowledge of Job requirements and standards	
• demonstrates the knowledge of site hazards present	
Knowledge of the work-plan and task/process site specific hazards	
• demonstrates the knowledge of operational hazards management	
• demonstrates the knowledge of the site work plan	
Knowledge of the trucking schedules and log stock reporting requirements (where applicable)	
• demonstrates ability to correctly call in log stocks	
• demonstrates knowledge of trucking schedules	
Knowledge to run a Safety Meeting	
• demonstrates understanding on meeting purpose	
• can maintain meeting minutes	
Knowledge of handling the duty of care to others (i.e. visitors)	
• Can explain on site requirements to visitors – safe areas, emergency procedures, hazards on site etc.	
• can maintain a visitors sign-in book	
Knowledge of an individual's duties	
• Follow and practice safe work methods	
• Discourage and prevent if necessary others working in an unsafe manner	
• Know responsibilities in an emergency and how to seek appropriate assistance	
• Report and rectify unsafe working conditions and equipment	

• Accurately report and investigate incidents	
• Know how to use, store, maintain and get replacement PPE	
• To provide informed consent for drug testing, medical monitoring and any other personal information for the purposes of administering HSE.	
• Correctly use any instruction given.	
Knowledge of duties as employer	
• Knowledge of both Employer and JNL Drug and Alcohol Testing Programme requirements.	
• Knowledge of both Employer and JNL requirements for Emergency Response – accident, fire, chemical spill etc.	
• Knowledge of both Employer and JNL procedures for reporting and investigating incidents.	
• Knowledge of both Employer and JNL self-auditing and inspection process.	
• Knowledge of HSNO management	
• Understanding of FSC Principles	
Personal attributes	
• Carries out effective communication	
▪ Ability to effectively multi-task	
Person in Charge of a Workplace: Can capably implement JNL's IMS	
▪ Understands how to implement the IMS	
▪ Has demonstrated implementation of IMS (JNL has audited this in the field)	
Person competent to audit to IMS standard • Is competent to sign off a person in charge of a workplace as competent to implement the IMS	

General Comments: (any supporting comments)

I verify that _____ (name) has been assessed as a person competent to manage and supervise operations and personnel for _____ (name of Entity)

Signed: _____ (person conducting assessment)

Signed: _____ (Person assessed)

On Job Employee Training Report & Competency Test Record

Trainees Full Name: Joseph Bloggs Crew Name: All Tree Logging Ltd No: 0002

Trainer: T. Trainer

Location: CPT 7 Black Forest Date: 7 - 1 - 04

Record in detail what training was given by utilising the headings below

TASK: Tree Felling

Circle reason for visit: (Assessment) Competency Test On job training

	Training Time	Units
OBSERVED: *(What was seen, positive, negative)* Good tree assessment and location of escape routes. Scarf & Back cut good.	1	17766
Correct method selected. Does not retreat up escape route to safe area once back cut completed.		
Does not look up as tree falls, looking at feet and where he walks.		
DISCUSSED: *(What was talked about to improve observations)* Hazards, when trees fall and why it is important to retreat to pre	5	
determined escape path.		
DEMONSTRATED: *(What was shown by the trainer)* Procedure for retreating down escape path and looking up.	2	
Demonstrated bore and release cuts and the use of wedges to assist felling	3.5	
RECOMMENDATION: *(What can be done to improve)* Joe is progressing well, but still requires supervision at all times.		
Focus on escape path and retreat. Ensure you use a range of cuts to improve skills, re: Tree Felling.		

Signed: Trainee Joe Bloggs Signed: Trainer T. Trainer

Signed: Contractor T. Contractor

The Trainee and the Contractor must sign this time sheet. The Contractor and Trainee must be given a copy. The third copy is for your own records.

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IMS SM 0001

Crew Safety Meeting Minute Sheet

Date _____ /_____ /_____

1. Hazards, new, site operational, environmental	2. Location & emergency procedures	3. Fire & First Aid	4. Inductions	5. HSE rep meeting	6. Equipment	7. Archaeological environmental, community	
8. Work plan	9. Training & Supervision	10. Incidents	11. Action points	12. Quality	13. Prescription	14. Corrective actions	15. Minutes previous meeting	16. Absent last meeting employee sign off
17. MTH	18. Traffic mgt plan	19. Safe retreat distance	20. Any NEW injuries	21. Felling	22. Extraction	23. Processing	24. Sort / Stack	25. Hauler / Yarder	26. Transportation	27. Slash mgt & water control

		Crew Signatures
Date For Daily Tailgate		

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SECTION 4

INCIDENT REPORTING & INVESTIGATION

Incident Reporting

For the purposes of the IMS, all accidents, incidents, environmental incidents and near misses will be deemed to be **incidents.**

All incidents that did, or had the potential to cause Serious Harm or a Significant Environmental Effect are to be reported to JNL.

Examples of the types of incidents to be reported, by incident type, are:

Health and Safety

- Property Damage – damage to vehicles, plant items, buildings, fences etc.
- Near Hit Incidents – any incident that required taking evasive action to avoid harm or effect – examples may include ducking to avoid flying objects, swerving off the road to avoid a vehicle accident, stopping an oil or chemical spill from reaching a waterway
- First Aid/Minor Harm incidents – any incident where treatment was able to be taken in the field without having to see a Medical Specialist e.g. applying plaster to minor cuts, washing dust or sawdust from eyes, cleaning up a chemical spill, recovery of slash from a waterway or a neighbour's property
- Medical Treatment/Specialist Assistance Incidents - are those that require treatment off site (for H&S incidents) by a Medical Specialist whether at the Doctor's surgery, A&E at the hospital. These injuries would not normally result in Lost Time. From an environmental perspective, a Medical Treatment equivalent might involve bringing an external agency onto site to assist with remedial action – e.g. the Regional Council's Spill response Team
- Lost Time Injury – any H&S incident that results in an individual missing his next scheduled shift because of injury. From an environmental perspective, a Lost Time incident may be when a crew is forced to shut down completely while remedial action occurs.
- H&S Serious Harm Incidents are when the injuries sustained require that MBIE are notified (see definition below). Note that Serious Harm may not always result in Lost Time, and Lost Time injuries are not always Serious Harm.

Environmental

- Minor Environmental Incidents are those that range from the spills that are contained before any long term environmental damage is done; discovery of Rare, Threatened or Endangered Species; discovery of new archaeological sites; damage to Significant Non-Plantation areas etc.
- Significant Environmental incidents would generally be those incidents that would normally require the involvement of an external agency – for example a significant chemical spill to water, operating without a legal consent, destruction of habitat of Rare, Threatened or Endangered specie

Notifying Incidents

All incidents are to be notified to JNL using the JNL Incident Investigation and Report form. Serious harm Incidents (Serious Harm being as defined in Schedule 1 s2(4) of The Health and Safety Employment Act 1992) are also to be notified to MBIE using the following procedure. For any Significant Environmental incidents, the agency mandated to investigate, e.g. District or Regional Councils will also be required to be notified. A record of any correspondence to these agencies must be maintained.

MBIE notification: Accident or Serious Harm

- Notify the Health and Safety Group of workplace accidents, unsafe situations or occurrences of Serious Harm as soon as possible Call MBIE on freephone 0800 20 90 20 (24 hours) and choose option 1.
- MBIE Hazardous Substance spill. If necessary, contact emergency services by phoning 111. If you are reporting a hazardous substances emergency, please call the New Zealand Fire Service on 111 and then MBIE's Response Team directly on 0800 20 90 20.
- Request for Site Clearance. It is a legal requirement not to disturb an accident scene until clearance is authorised by a health and safety inspector except in certain situations, including when persons or property are at risk, as provided for by section 26 of the Health and Safety in Employment Act 1992. If you require scene clearance or other immediate assistance from a health and safety inspector, please call 0800 20 90 20.
- Provide written notice within seven days. You must provide the MBIE Health and Safety Group with written notice of the circumstances of the accident or serious harm within seven days by using one of the notification forms below (or by providing the same details).
    - Option 1 | Notify online: Complete the online notification form http://www.dol.govt.nz/Tools/Accident/Home/SeriousHarmNotificationOption 2 | Complete & return a paper form (copy appended to this section)
      Completed written notice can be returned by:
      Post to
      The Registrar
      Health and Safety Group Response Team
      PO Box 105146
      Auckland

      Email: SeriousHarm.Notification@dol.govt.nz
      Fax: (09) 984 4115

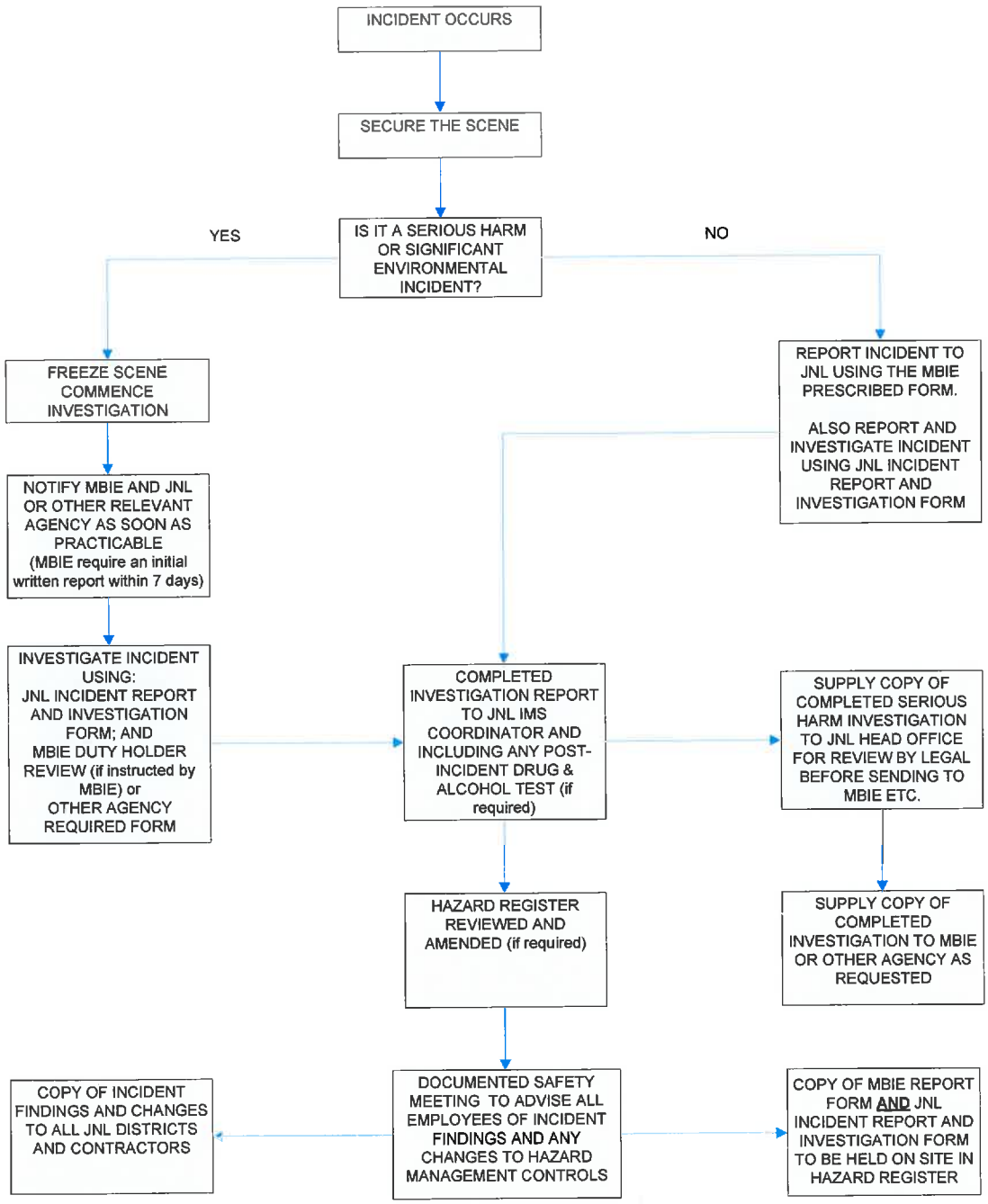
      Note | Email notifications may not be responded to until the next business day.

Investigating Incidents

All incidents, whether Serious Harm or not, are to be investigated to determine the Basic Cause. All JNL investigations will be carried out using the JNL Incident Investigation and Report Form. Once the investigation is complete, the Hazard Register is to be reviewed and if required amended (refer IMS Section 2). The findings of the investigation and any changes to the Hazard Register are to be communicated to all employees through documented Safety Meetings. This information should also be communicated to other JNL Districts, and to Contractors who may benefit from the information.

Post-Incident Drug and Alcohol Testing may be required to be carried out if there is any suspicion that Drugs or Alcohol may have played a part in the incident. The process and protocol for testing is outlined in Policies section of the IMS field folder.

INCIDENT MANAGEMENT

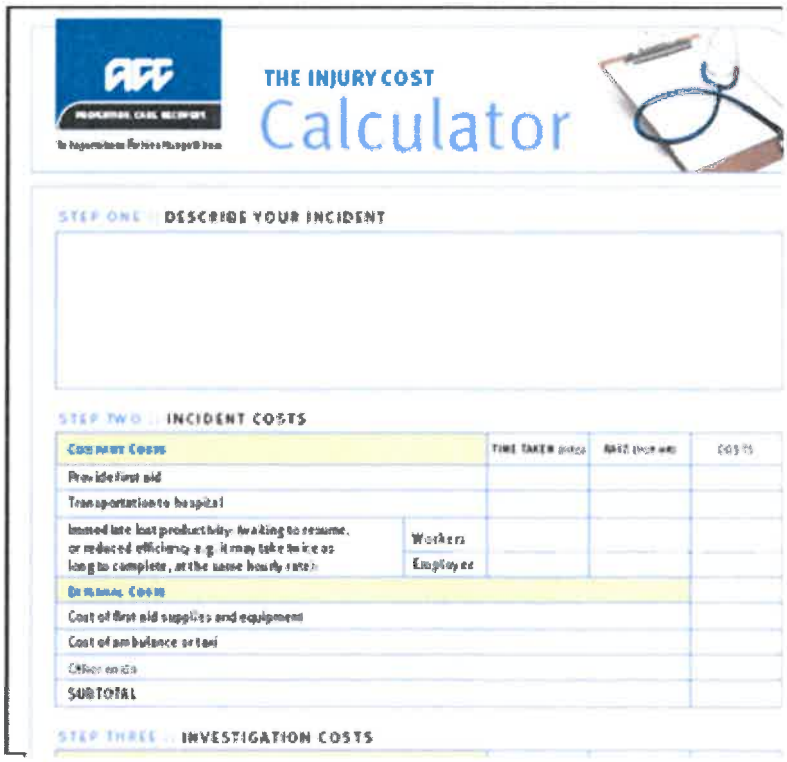


NB: Refer also to the JNL HSMS for rehabilitation and early return to work policies and procedures for JNL employees.

Costing of Incidents

All incidents involving JNL personnel or property (and including costs of extinguishing as well as cost of lost crop in rural fires) are to be costed using the ACC Injury Cost Calculator. The costs that are to be recorded are the direct costs to JNL – lost hours, vehicle repairs etc. and do not include costs to the Contractor.

http://www.acc.co.nz/PRD_EXT_CSMP/groups/external_ip/documents/interactiveresource/wcm1_024748.hcsp



THE INJURY COST
Calculator

STEP ONE DESCRIBE YOUR INCIDENT

STEP TWO INCIDENT COSTS

Company Costs		TIME TAKEN (HRS)	RATE (PER HR)	COSTS
Provide first aid				
Transportation to hospital				
Immediate lost productivity- waiting to resume, or reduced efficiency e.g. it may take twice as long to complete, at the same hourly rate>	Workers			
	Employee			
Direct Costs				
Cost of first aid supplies and equipment				
Cost of ambulance or taxi				
Other costs				
SUBTOTAL				

STEP THREE INVESTIGATION COSTS

The following forms are used in the Incident Reporting & Investigation Process. You must use both the JNL form and the Work Safe NZ form for any one particular incident/accident report.

When reporting incidents/accidents. Use the MBIE form to notify Work Safe. You maybe then asked by Work Safe to Investigate the incident/accident on their Duty Holder Investigation Report for. Please note that for non - injury accidents, you only need to complete questions 1,2,3,9,10,11,14 and 15 for MBIE on their form.

For JNL use the Incident investigation and incident report form and processes per incident you report to the JNL office.

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Incident Investigation & Incident Report

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THIS IS WHERE YOU DO **BOTH** YOUR INCIDENT INVESTIGATION AND INCIDENT REPORT
ALL ON THE ONE FORM

This Incident format is to be used for all incidents where:
There was Serious Harm, or there was the potential for serious harm to any person; or
An environmental incident has caused, or had the potential to cause, significant environmental damage.

Consideration must be given to all the heading points for each incident investigation.

NOTE: THAT THE REPORT MAY CONTINUE ON EXTRA NUMBERED SHEETS IF REQUIRED

Incident Investigation: All incidents that may have or did cause serious harm will be investigated (this includes environmental incidents) using the following format/content. For serious harm all headings are to be reported on and names of injured/deceased and witnesses/those interviewed must be used. Written statements/ persons interviewed must be signed and dated and attached to this form.

Environmental & Health and Safety Incident Investigation Form.

1. BRIEF DETAILS OF ACCIDENT / EVENT: Outline the circumstances leading to the harm; Name any injured or diseased. List of witnesses Include all accident details, including the site, time of occurrence (where identifiable) etc. Person in immediate control of place of work. Photographs and measurements of the accident scene should be taken.

2. SET UP Outline: Describe the accident scene. All the steps / stages in the process / procedure / work being undertaken. Materials used, machinery operated, etc. The overall work environment. For outside work places, describe weather conditions, terrain etc.

Confirm who owns machinery etc. Confirm all accident details including site, time of occurrence.

3. INTERVIEWS: List the names and positions of persons interviewed. Attach written statements from persons interviewed - ensure they are signed and dated.

4. HAZARD IDENTIFICATION: Have hazards been identified? (What are the controls?), attach copies of hazard sheets relevant to accident.

5. INFORMATION TO EMPLOYEES: How has the information been given to the employees? Verbal / Written (i.e. Hazards and procedures) Was there a record kept? (attach copies).

6. INJURY / ILLNESS FACTORS: Record details of harm suffered by the victim and description of injuries or illness. Identify the agent of injury or illness, i.e. the factor(s) Attach copy of Doctors report.

7. TRAINING & SUPERVISION: Details and records of training - who gave it- how often - content - type e.g.., buddy, on-the-job, class room. Details of supervision - by who - designation - how often. (attach copies relevant to accident)

8. CONTRIBUTING CAUSES: This section of the report should explain the investigating persons assessment of the accident causation process.

9. CONCLUSIONS: Cover all conclusions reached.

10. ACTION TAKEN: Detail what has been done to eliminate/isolate/minimise the chance of this accident reoccurring. Detail review of emergency procedure performance for this incident including employee input for any new development of procedures. Documented safety meeting evidence to pass on findings to employees.

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Incident Report & Investigation

Location/Forest: _____ Crew Name: _____ Cmpt No. _____

Incident Type (i.e. Harvesting, Roading, Silviculture etc.) _____ Incident Date ____/____/____

IRIS Requirements

INCIDENT TYPE:

- ☐ MTI
- ☐ LTI
- ☐ Minor Injury / First Aid
- ☐ Contact - NO injury
- ☐ Near Hit
- ☐ Property Damage
- ☐ Environmental

Worksafe notified
Yes ☐ No ☐

Serious Harm ☐	Fatality ☐	NOT Serious Harm ☐	Not Applicable ☐
Incident Time: : AM / PM			
Operation and Task:			
Body Part:	What side of body:		
Injury Type (*cut, burn, crush etc.*):			
Injury Cause (*chemical, chainsaw, ladder, tree, log etc.*):			
Treatment Date: / /			
Treatment type (*doctor, GP hospital, first aid on site, ongoing specialist treament etc.*):			
Brief incident description			
Actual lost work hours to date:			
Victims Name:			

Treatment Requirements if an LTI:	
Age of Injured:	Length of time worked for JNL:
How far into shift did incident occur:	Estimate how much more time off will result:
Counter measures to avoid repeat accident:	
Previous Injuries	

Photo / Diagram No.:	
Photo / Diagram by:	
Date & Time of Photo / Diagram:	
Location depicted in the Photo / Diagram:	
Comments:	
Hazard register and controls revised ☐	Safety meeting held to discuss advised hazards and their controls ☐
Employee Status ☐ JNL Employee ☐ Contractor ☐ Other ☐ Visitor/Public	

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FORM OF REGISTER OR NOTIFICATION OF CIRCUMSTANCES OF ACCIDENT OR SERIOUS HARM

WORK SAFE NZ
MAHI HAUMARU AOTEAROA

Required for section 25(1), (1A), (1B), and (3)(b) of the Health and Safety in Employment Act 1992. For non-injury accident, complete questions 1, 2, 3, 9, 10, 11, 14 and 15 as applicable.

1. Particulars of employer, self-employed person or principal:
(business name, postal address and telephone number)

2. The person reporting is:

an employer a principal a self-employed person

3. Location of place of work:
(shop, shed, unit nos., floor, building, street nos. and names, locality/ suburb, or details of vehicle, ship or aircraft)

4. Personal data of injured person:

Name:

Residential address:

Date of birth: / / Sex: (M/F)

5. Occupation or job title of injured person:
(employees and self-employed persons only)

6. The injured person is:

an employer a contractor (self-employed person)

self other

7. Period of employment of injured person:
(employees only)

1st week 1st month 1-6 months

6 months-1 year 1-5 years Over 5 years

non-employee

8. Treatment of injury:

None First aid only

Doctor but no hospitalisation Hospitalisation

9. Time and date of accident/serious harm:

Time: (am/pm)

Date: / /

Shift: Day Afternoon Night

Hours worked since arrival at work:
(employees and self-employed persons only)

10. Mechanism of accident/ serious harm:

fall, trip or slip heat, radiation or energy

hitting objects with part of the body

biological factors sound or pressure

chemicals or other substances mental stress

being hit by moving objects body stressing

11. Agency of accident/ serious harm:

machinery or (mainly) fixed plant

mobile plant or transport

powered equipment, tool, or appliance

non-powered handtool, appliance, or equipment

chemical or chemical product

material or substance

environmental exposure (eg dust, gas)

animal, human or biological agency (other than bacteria or virus)

bacteria or virus

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Email: seriousharm.notification@worksafe.govt.nz Fax: 09 984 4115
Phone: 0800 030 040 Post: PO Box 165, Wellington, 6140

New Zealand Government

12. Body part:

head neck trunk upper limb

lower limb multiple locations

systemic internal organs

13. Nature of injury or disease:
(specify all)

fatal

fracture of spine

other fracture

dislocation

sprain or strain

head injury

internal injury of trunk

amputation, including eye

open wound

superficial injury

bruising or crushing

foreign body

burns

nerves or spinal chord

puncture wound

poisoning or toxic effects

multiple injuries

damage to artificial aid

disease, nervous system

disease, musculoskeletal system

disease, skin

disease, digestive system

disease, infectious or parasitic

disease, respiratory system

disease, circulatory system

tumour (malignant or benign)

mental disorder

14. Where and how did the accident/serious harm happen?
(If not enough room attach separate sheet or sheets.)

15. If notification is from an employer:

(a) Has an investigation been carried out? yes no

(b) Was a significant hazard involved? yes no

Signature:

Date: / /

Name:
(capitals)

Position:
(capitals)

WORKSAFE NEW ZEALAND
Email: seriousharm.notification@worksafe.govt.nz Fax: 09 984 4115
Phone: 0800 030 040 Post: PO Box 165, Wellington, 6140

New Zealand Government

SECTION 5

WAIRARAPA DISTRICT

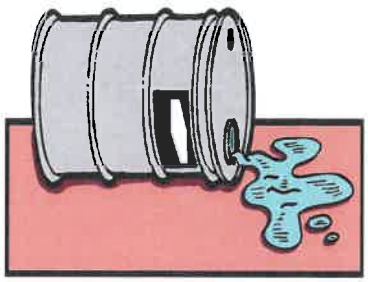
EMERGENCY RESPONSE PLAN
2014-2015

FLOOD

VEGETATION FIRE

PERSONAL INJURY

WINDSTORM



CHEMICAL INCIDENT

Refer also Wairarapa District Emergency Management plan attached

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General Preparedness

- Contractors and JNL staff normally have daily radio and/or cell phone contact with the Forestry Office in each district

  A record of crew name and location is maintained daily (or in some districts, weekly) by the JNL Base radio.

  Emergency contacts are kept in the Fire Plan and distributed to all staff and contractors with radios and updated annually before the summer high-fire-risk period

- A training register will record emergency training for JNL staff and contractor crews. This will be kept up-to-date.

- Contract schedules, Burn Plan and associated Best Practices, and Fire Permits control welding and burning activities on forest land

- Forest access permits are issued to recreational and commercial users of JNL forests, and a register maintained in each forest district

- Actions required for a general diesel or chemical spill are described on a Diesel and Chemical Action Plan flowchart.

Responsibilities and authorities

- All staff are responsible for ensuring contractors are prepared for accident and emergency situations

- Staff attending accident and emergency situations are responsible for subsequent investigations

- Revision of JNL Fire Plans is carried out by designated staff

- IMS Manager or designated staff shall investigate and review emergency procedures after any environmental incident, after testing of emergency exercises, and report at Management Review time.

- Environmental Incidents are to be advised to the IMS Manager and District Coordinators. They must also be reported through the Incident Register on the Head Office Server

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INTRODUCTION

Both the JNL Integrated Management System (IMS) and The Health and Safety in Employment Act (1992) require that employees are aware of what emergency situations may arise while at work and the procedures to deal with any such emergency. Additionally, it is in the business continuance interests of JNL that a plan and procedures are in place to respond to emergency quickly and effectively in order to minimise whatever potential disruption the emergency may threaten. Further there is a requirement to provide training and resources to perform these functions.

The Plan outlines the response and control arrangements, and the resources that are available to be activated in an emergency. The emergency incidents responses most likely to be encountered in the forest are:

- Rural Fire – Vegetation, Structure or Machinery
- Personal Injury / Medical Incident
- Chemical Spillage
- Natural event – Earthquake
- Climatic Event – Flooding, Gale force winds

Emergency Incident responses where offices are located at JNL Mill sites are covered by the relevant Mill Emergency Procedures. A copy of those procedures for the Wairarapa site is available at the Forest Office follows.

ACTION FOR EMERGENCY

RAISING THE ALARM

1. At all times when any emergency incident occurs in, or may threaten the forest, the following action is to be taken.

    - Contact Juken New Zealand Ltd Base either by radio or by cell phone and advise details.
    - If required by Juken Base, investigate further to confirm location and details.
    - If it is safe to do so, and if you are properly equipped and able to do so, take action to minimise the impact of the incident, including the administering of First Aid.

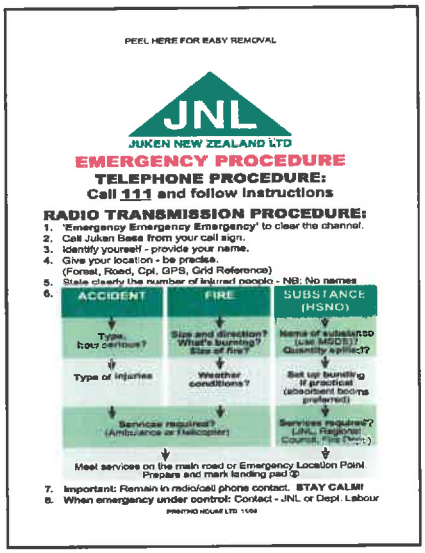
2. Making contact with Juken Base.

    - **Radio**
      Call Juken Security, using the appropriate Radio Channel, (Channel 1, 2 or 3)
      Juken Security mans the radio 24 hours, 7 days.
    - To make an emergency radio call, turn to appropriate radio channel and call:

      Emergency, Emergency, Emergency
      Juken Security, This is (your callsign)
      Emergency Report

    - **Telephone**
      If no response by radio, ring 111 and give all the details. They will respond and make the necessary contacts with the relevant Emergency Services Provider. You should continue to try to make contact with JNL as well.

- After contact has been made, it is important to have someone stay at the radio or telephone until assistance arrives, so that further information can be relayed to be able to contact. You may also need to send someone in a vehicle to an agreed point on the nearest public road to pilot them into the incident scene.



PEEL HERE FOR EASY REMOVAL

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EMERGENCY PROCEDURE

TELEPHONE PROCEDURE:
Call 111 and follow instructions

RADIO TRANSMISSION PROCEDURE:

1. 'Emergency Emergency Emergency' to clear the channel.
2. Call Juken Base from your call sign.
3. Identify yourself - provide your name.
4. Give your location - be precise.
   (Forest, Road, Cpt, GPS, Grid Reference)
5. State clearly the number of injured people - NB: No names
6.

ACCIDENT	FIRE	SUBSTANCE (HSNO)
Type, how serious?	Size and direction? What's burning? Size of fire?	Name of substance (use MSDS)? Quantity spilled?
Type of injuries	Weather conditions?	Set up bunding if practical (absorbent booms preferred)
Services required? (Ambulance or Helicopter)		Services required? (JNL, Regional Council, Fire [Rural])

Meet services on the main road or Emergency Location Point.
Prepare and mark landing pad

7. Important: Remain in radio/cell phone contact. **STAY CALM!**
8. When emergency under control: Contact - JNL or Dept. Labour

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RECEIVING AN ALARM

EMERGENCY INCIDENT CALL QUESTIONNAIRE

Date: _____ Time: _____

Name of Caller: _____

Contact Number (Include STD Code): _____

Incident Type: *(circle one)* Fire / Accident / Environmental

Location of Incident (Forest/Road/Cpt):_____

Access Roads to Fire (Include Reference Points): _____

What Steps Have Been Taken: _____

Is assistance required? Y/N _____ Ambulance / Helicopter _____

Meeting place with Emergency services: _____

FIRE:
Material Burning: _____

Extent of Fire (How large e.g.; size of car?): _____

Wind Direction:_____ Wind Strength 1-10 Scale, 1 (Light Wind), 10 (Gale): ____

ACCIDENT:
DO NOT MENTION PATIENT NAMES PLEASE IF CALL COMES FROM RADIO.

Number of People involved: _____

Type of Injuries: _____

CHEMICAL SPILL:
Chemical Number of People involved:_____

Type of Injuries: _____

OTHER INCIDENT:
Type of Incident: _____

Injuries or Damage: _____

INSTRUCT CALLER TO HAVE SOMEONE MEET EMERGENCY SERVICES AT NEAREST MAIN ROAD.

Call Taken by (Please Print Name): _____

ON COMPLETION OF TAKING INFORMATION, CALL RECEIVER IS TO OPEN A DIARY OF ALL ACTIONS TAKEN.

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EMERGENCY RESPONSE ACTIONS
PERSONAL INJURY/MEDICAL CONDITION

	ACTION
OFFICE	Receive Incident report. Assume role as Incident Controller
	Contact Emergency Services on 111 and advise incident details, what services are required, and what actions have been taken to date.
	Start Log Book
	Maintain radio/telephone contact until the emergency is over

INCIDENT GROUND	Ensure security of the incident site. Check it is safe to proceed with any treatment
	Render First Aid if it is possible to do so safely, and if you are trained and equipped
	Call JNL with details of the incident. REMEMBER NOT TO USE NAMES ON THE RADIO
	If the incident involves chemical ingestion, bring a container or a copy of the MSDS to the radio/telephone. If the injured has a Medic Alert bracelet, bring details from that bracelet to the radio/telephone
	If JNL is not contactable, try to contact Emergency Services direct on 111, or the National Poisons Centre on 0800 76 4766
	If external assistance is required, Ambulance, Rescue Helicopter etc., you should make provision for someone to remain in contact by telephone or radio to provide further details as requested. You must also make provision for someone to meet any Ambulance on the nearest point of access on a public road. For helicopter assistance, try to locate the nearest site where a helicopter may land, and mark it some way so it is visible from the air, (use spray paint to put a large H in a circle, or leave someone on the site to use bright clothing etc. to signal with).
	DO NOT attempt to transfer anyone to Hospital or Doctor who has, or is suspected of having, any back or head injuries

EARTHQUAKE, FLOODS, GALE FORCE WINDS

	ACTION
OFFICE	Receive Incident report. Assume role as Incident Controller
	Start Log Book
	Maintain radio/telephone contact until the emergency is over

INCIDENT GROUND	Ensure security of the incident site. Check it is safe to proceed with any treatment, and that nobody has sustained serious injury
	Call JNL with details of the incident.
	If the incident involves personal injury, you should activate the Emergency Response Action for Personal Injury.
	If no Personal injuries are involved, or if injuries are only minor, you should attempt to evacuate the forest
	You MUST continue to try to make contact will JNL to advise you are all clear of the forest, and whether there are injuries or not.
	Take extreme care when driving out of the forest – roads may be blocked or damaged

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CHEMICAL RELATED INCIDENTS

	ACTION
OFFICE	Receive Incident report. Assume role as Incident Controller
	Contact relevant Emergency Services, and advise incident details, what services are required, and what actions have been taken to date.
	Start Log Book
	Maintain radio/telephone contact until the emergency is over

INCIDENT GROUND	Ensure security of the incident site. Check it is safe to proceed with any treatment, and that nobody has sustained serious injury
	Call JNL with details of the incident.
	Bring a container or a copy of the MSDS to the radio/telephone when making the report
	If the incident involves people affected by swallowing, inhaling etc. any chemical, follow the Emergency Response Action for Personal injury
	If external assistance is required, Ambulance, Rescue Helicopter etc., you should make provision for someone to remain in contact by telephone or radio to provide further details as requested. You must also make provision for someone to meet any Ambulance on the nearest point of access on a public road. For helicopter assistance, try to locate the nearest site where a helicopter may land, and mark it some way so it is visible from the air, (use spray paint to put a large H in a circle, or leave someone on the site to use bright clothing etc. to signal with).
	If the incident involves a leak or spillage, take steps to contain the spill/leak as best as possible
	Spills/leaks to any waterway MUST be notified to the Greater Wellington Regional Council as soon as possible – their 24 hour helpline is 0800 4967 34.
	Significant spills/leaks to land (including on any public road) must be notified to the relevant local authority

MISSING PERSON INCIDENTS

	ACTION
OFFICE	Receive Missing Person report. Assume role as Incident Controller
	Despatch someone with good knowledge of the route, and with First Aid experience, to travel the route back to the worksite
	Start Log Book, or arrange for security to start and maintain a full log
	Advise Forest Manager and any other relevant JNL staff
	Maintain liaison with Security
	Maintain radio/telephone contact until the emergency is over
	Maintain contact with any other persons involved – family etc. with updates

INCIDENT GROUND	If the missing person is located en route or at the worksite, render whatever assistance may be needed and advise security and/or JNL Incident Controller of the situation. Assistance may be required from external agencies such as Ambulance, Police (in the event of a motor vehicle accident), or simply a tow truck
	If the missing person is not located en route or at the worksite, Incident Controller should notify Police of a potentially missing person. Note that if the person turns up later, Police will need to be notified.

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Hazardous Substance Spill Response

What to do in an emergency!

Diesel / petrol

Fertiliser

Agrichemical

Incident occurs

Is there injury or risk to any people? — No → Is there fire or risk of fire? — No →

Yes

Yes

Secure the site

Check MSDS[1] sheet (inside driver door/or call office) if hazardous substance/chemicals suspected

Do 1st aid check if necessary

also →

Is there risk to any waterway? — No → Is there risk of soil contamination? — No →

Yes

Yes

then

Call for Assistance

Accidents

111

JNL Forest Office

Duty Officer

Spills

Regional or District Council

Is it a major spill? — No →

Yes

Yes

Contain and control spill

Turn off taps, plug leaks

Construct dirt dams, ditches/pits,

Spread sawdust or other absorbent materials

Call for assistance

Minor spill = no chance of runoff to water courses or other property
Major spill = liquids or chemicals that could become a liquid if it rained and had the potential to cause pollution

then

Clean up spill/site

Dig out contaminated soil

Collect in drums or truck

Take to local authority land fill

Advise landfill staff that material is contaminated (NB: testing may be required before disposal)

then

Report

Fill out Environment Incident and/or Accident Report form

Supply to JNL Environmental or Safety Co-ordinator

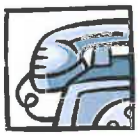
← then

Investigate and Review

Corrective & preventive actions required ?

← then

Send report to EMS Manager



Always Monitor
- incident site for spill & fire potential especially when moving damaged machines

JNL is committed to preventing pollution

[1] MSDS - Material Safety Data Sheet

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Hazardous Substance Spill Information

CAUSES OF SPILL	SPILL PROCESSES	HAZARDS	IMPACTS
Hose splits	Leakage	Fire	Soil contamination
Tank(er) damage	Slow flows	Explosion	Stream pollution
Tap/nozzle failure	Rapid flows	Smoke	Air pollution
Pump failure	Evaporation	Wind	Vegetation fire
Loose/damaged fittings	Leaching	Machines	Property damage
Vehicle accident		Ropes	Skin, eye, lung injuries
Vent Pipes			
Drum tipped over		Enclosed spaces	

First response equipment that must be held on site
Shovels, excavator, bulldozer blade
Absorbent material - sawdust, dirt
Dry foam CO_2 extinguishers for fire
Soap, water and disposable towels for clean up.

Spill Kits held at the Following Locations
Available from Mill

On Site Actions

Granules: To Land

- Sweep up & collect into drum/bag etc. Remove any contaminated soil.
- DO NOT use water.

To water

- Dam the waterway if possible. Use absorbent material / booms to try to soak up as much as possible.

Liquids: To Land

- Dam and stem the flow. Use absorbent material / booms to try to soak up as much as possible.

To water

- Dam the waterway if possible. Use absorbent material / booms to try to soak up as much as possible.

Disposal:

- Testing may be required by the Council. Contact Environmental Health Officer and follow advice.
- Take to local landfill. Advise Landfill staff. They will dispose of it in a secure area.
- Contact manufacturer before attempting disposal. Contain in secure location until disposal method is established.

Contact Numbers

National Operations Centre	**111**	will call nearest Fire Brigade and Regional / District authorities if a call is made
JNL Office Masterton		06 370 6400 (24 hr)
Masterton District Council		06 378 9666 (24 hr)
Carterton District Council		06 379 6626 (24 hr)
Wellington Regional Council		04 384 5708 (24hr) Wellington 06 378 2484 (24hr) Masterton 0800 496 734

2014-2015 EMERGENCY RESPONSE OFFICER ROSTER
WAIRARAPA FORESTS

29-Sep-14	Monday		Tony Morris	5 man crew	MAN (2 man)
6-Oct-14	Monday		Dave Hilliard	Te/Wichman/B Dewar	McCarthy + 1 Wichman
13-Oct-14	Monday		Sean McBride	Pomare	McCarthy + 1 Pomare
20-Oct-14	Monday	LABOUR WEEKEND	Steve McCabe	Wichman 1	McCarthy + 1 Wichman
28-Oct-14	Tuesday	WRFD DUTY	Roger Allen	Wichman 2	McCarthy + 1 Wichman
3-Nov-14	Monday		Tony Morris	Te/Wichman/ B Dewar	McCarthy + 1 Wichman
10-Nov-14	Monday		Dave Hilliard	Havard	McCarthy + 1 Havard
17-Nov-14	Monday		Roger Allen	Wichman 1	McCarthy + 1 Wichman
24-Nov-14	Monday		Sean McBride	Wichman 2	McCarthy + 1 Wichman
1-Dec-14	Monday		Steve McCabe	Te/Wichman/B Dewar	McCarthy + 1 Wichman
8-Dec-14	Monday		Tony Morris	Pomare	McCarthy + 1 Wichman
15-Dec-14	Monday		Dave Hilliard	Wichman 1	McCarthy + 1 Wichman
22-Dec-14	Monday	XMAS	Sean McBride	Wichman 2	McCarthy + 1 Wichman
29-Dec-14	Monday	NEW YEAR	Roger Allen	Te/Wichman/B Dewar	McCarthy + 1 Wichman
5-Jan-15	Monday		Steve McCabe	Havard	McCarthy + 1 Havard
12-Jan-15	Monday	ANNIVERSARY W/E	Tony Morris	Wichman 1	McCarthy + 1 Wichman
20-Jan-15	Tuesday		Dave Hilliard	Wichman 2	McCarthy + 1 Wichman
26-Jan-15	Monday		Sean McBride	Te/Wichman/B Dewar	McCarthy + 1 Wichman
2-Feb-15	Monday	WAITANGI DAY	Roger Allen	Pomare	McCarthy + 1 Pomare
9-Feb-15	Monday		Steve McCabe	Wichman 1	McCarthy + 1 Wichman
16-Feb-15	Monday		Tony Morris	Wichman 2	McCarthy + 1 Wichman
23-Feb-15	Monday		Dave Hilliard	Te/Wichman/B Dewar	McCarthy + 1 Wichman
2-Mar-15	Monday		Sean McBride	Havard	McCarthy + 1 Havard
9-Mar-15	Monday		Roger Allen	Wichman 1	McCarthy + 1 Wichman
16-Mar-15	Monday		Steve McCabe	Wichman 2	McCarthy + 1 Wichman
23-Mar-15	Monday		Tony Morris	Te/Wichman/B Dewar	McCarthy + 1 Wichman
30-Mar-15	Monday	EASTER	Dave Hilliard	Pomare	McCarthy + 1 Pomare
7-Apr-15	Tuesday		Sean McBride	Wichman 1	McCarthy + 1 Wichman
13-Apr-15	Monday		Roger Allen	Wichman 2	McCarthy + 1 Wichman
20-Apr-15	Monday	ANZAC DAY	Steve McCabe	Te/Wichman/B Dewar	McCarthy + 1 Wichman
27-Apr-15	Monday		Tony Morris	Havard	McCarthy + 1 Havard
4-May-15	Monday		Dave Hilliard	Wichman 1	McCarthy + 1 Wichman
11-May-15	Monday	WRFD DUTY	Sean McBride	Wichman 2	McCarthy + 1 Wichman
18-May-15	Monday		Roger Allen	Te/Wichman/B Dewar	McCarthy + 1 Wichman
25-May-15	Monday		Steve McCabe	Pomare	McCarthy + 1 Pomare
27-May-13	Monday		Tony Morris	Wichman 1	McCarthy + 1 Wichman

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JUKEN RADIO CALL CHECKLIST

JUKEN BASE	Trina, Natasha
JUKEN SECURITY	Security Guard
RSS1	Field Callsign

JUKEN	1	Dave Hilliard Cell 0274 546 061
JUKEN	2	Roger Allen Cell 0274 469 525
JUKEN	3	Steve McCabe Cell 0274 426 002
JUKEN	5	Tony Morris Cell 0275 348 988
JUKEN	6	Sean McBride Cell 0274 992 931
JUKEN	7	MAN F/Engine
JUKEN	8	ISUZU F/Engine
JUKEN	9	Byron Dewar Cell 027 807 4731

JNL STANDBY PAGER	026 110 790
JNL BASE PHONE (24/7)	06 370 0650

EMERGENCY RADIO CALL FOR ASSISTANCE
"EMERGENCY EMERGENCY EMERGENCY"
This is: Crew Name & Call sign on Channel..
"EMERGENCY EMERGENCY EMERGENCY"

MCCARTHY DISPATCH		Stan, Garry, Jody
MCCARTHY	1	Steve McDougall
Truck no. 95 = McCarthy Truck 95 etc		
WICHMAN	1	Vaatau Wichman
WICHMAN THIN		Thinners
WICHMAN PRUN		Pruners
WICHMAN	2	Craig Reiri
WICHMAN	3	Fono Setu
WICHMAN	4	Raymond - Van
WICHMAN	5	Anton
TE	1	Tyrone Ewington
DARLINGTON	1	Brent James
DARLINGTON	2	Paul Sayer
HOOPER	1	Dave Hooper
HOOPER	6	Tiny - Mitsubishi
HOOPER	7	Jim Wahren-Kenworth
HOOPER	8	Pete – Hino tipper
HOOPER	11	Transporter
HOOPER	14	Radar – Hino tipper
HOOPER	15	Bill Laing

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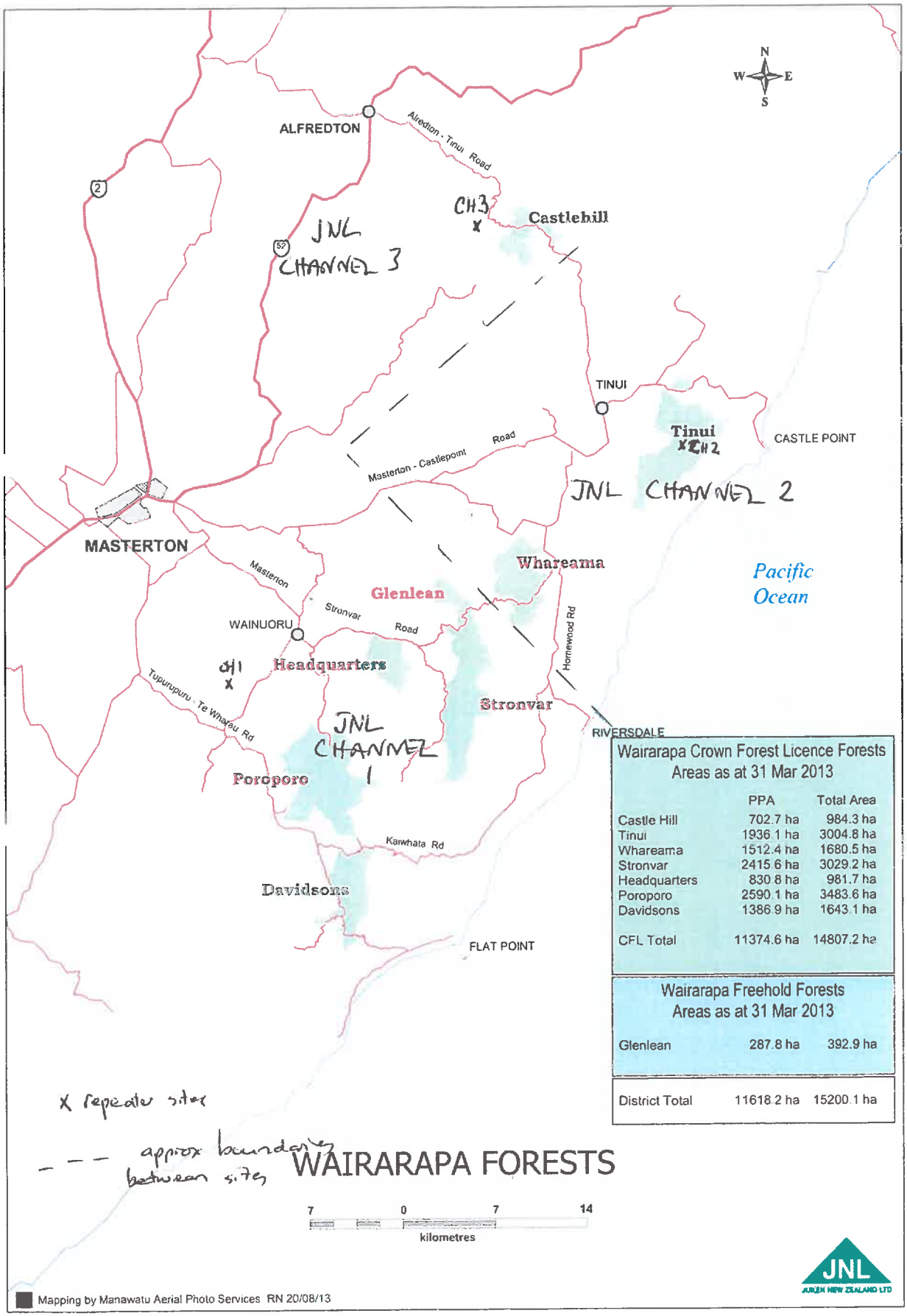
HAVARD	2	Gavin Wilson
BERGER	3	Loader–Matt Omundsen
BERGER	4	Loader 2 – Brent Beech
BERGER	5	Ute - Matt
BERGER	6	Ute - Brent
BERGER	7	Ute - Aaron
Chill HAVARD	5	Loader – James Ormond
HAVARD	9	D7 & Ute – Bryan Norman
HAVARD	10	Loader – Victor Thompson
HAVARD	11	Ute – James Ormond
HAVARD	12	Loader 2 – Geoff Barnes
HAVARD	13	Ute – Geoff Barnes
HAVARD	14	Ute - Ginge
HAVARD	15	909 – Joe
HAVARD	16	Ute - Joe
HAVARD	17	Alan Pankhurst
MachinMtc	1	Robert Thomas
Hare	1	Lance Hare
TBIRD	2	Mike Havard
TBIRD	3	Loader – Jimmy
TBIRD	4	Loader 2 – Dave Futter
TBIRD	5	Loader 3
TBIRD	6	Ute - Shane
HORNE	1	Bernard Horne
TMY HORNE	2	Mike Gain
HORNE	3	Loader – Kim Mason
HORNE	4	Loader – Corey Winter
HORNE	5	Loader
HORNE	6	Ute – Matt Horne
HORNE	7	Loader
HORNE	8	Hauler – Justin Carswell
HORNE	9	Ute
POMARE	1	Mike Pomare
POMARE	2	Nick Cusack
POMARE	3	Loader – Morgan Morris
POMARE	4	Loader – Harley Biel
POMARE	5	Ute – Neville Biel
POMARE	6	Matt Kindelan
POMARE	7	Brendon Hodson
POMARE	8	Hauler – Paddy Dewar
POMARE	9	Dennis Hohua
FARMLANDS	1	Farmlands Diesel Truck

8 OCTOBER 2014



Wairarapa Crown Forest Licence Forests
Areas as at 31 Mar 2013

	PPA	Total Area
Castle Hill	702.7 ha	984.3 ha
Tinui	1936.1 ha	3004.8 ha
Whareama	1512.4 ha	1680.5 ha
Stronvar	2415.6 ha	3029.2 ha
Headquarters	830.8 ha	981.7 ha
Poroporo	2590.1 ha	3483.6 ha
Davidsons	1386.9 ha	1643.1 ha
CFL Total	11374.6 ha	14807.2 ha

Wairarapa Freehold Forests
Areas as at 31 Mar 2013

Glenlean	287.8 ha	392.9 ha
District Total	11618.2 ha	15200.1 ha

JNL WAIRARAPA - EMERGENCY LOCATION POINTS

Forest	ELP ID	Site Description	TOPO50 Series			World Geodetic System 1984							JNL Radio	Cellphone
						Longitude			Latitude					
			Map No.	Northing	Easting	Degrees	Minutes	Seconds	Degrees	Minutes	Seconds	Altitude masl	Channel	Coverage
Castlehill	1	Western side of Taueru River bridge on Public road by Wingate's gateway	BN36 Castlepoint	5,484,097	1,852,392	175	59	23	-40	45	19	260	2,3	No
Castlehill	2	Alfredton-Tinui Rd opposite Woodstave Rd east gate in Dalziell's paddock		5,483,662	1,854,902	176	1	10	-40	45	30	280	2,3	No
Castlehill	3	Corner Brown's Rd and Dalziell Rd		5,482,695	1,852,906	175	59	47	-40	46	4	325	2,3	No
Castlehill		100m short of the end Te Awa Rd. Easy access into Joblin's paddock		5,482,077	1,852,005	175	59	18	-40	46	25	375	1,2,3	Yes
Castlehill		Waitawhiti Rd where it meets Blyth's boundary		5,485,198	1,854,679	176	0	59	-40	44	41	320	2,3	No
Tinui	4	Masterton-Castlepoint Rd at Tinui Gate	BP36 Castlepoint	5,471,541	1,864,113	176	8	1	-40	51	53	115	1,2,3	No
Tinui	5	Maunsell Rd/Tinui South Rd corner		5,468,041	1,864,440	176	8	21	-40	53	46	305	1,2	Yes
Tinui	6	Corner Station Rd and Field Rd. Easy access through trees to Castlepoint Station		5,467,583	1,867,421	176	10	29	-40	53	57	245	1,2,3	Yes
Tinui	7	Tinui 5th Rd approx 500m north of Pit Rd. Access into Castlepoint Station		5,463,349	1,862,593	176	7	9	-40	56	19	270	2,3	No
		Maunsells dam in Big Saddle on Castlepoint Rd											2,3	No
Whareama	8	Masterton-Riversdale Rd and Poplar Flats gate	BP35 Bideford	5,459,860	1,854,858	176	1	44	-40	58	21	35	1,2	No
Whareama	9	Masterton-Riversdale Rd and Waihora Rd corner	and	5,458,409	1,855,644	176	2	19	-40	59	7	50	1,2	No
Whareama	10	Spaghetti Junction. Corner of Everest, Poplar Flats, Trig roads	BP36 Castlepoint	4,547,023	1,852,592	176	0	11	-41	59	56	65	1,2,3	Yes
Whareama	11	Junction of Whareama and Waihora Rds		5,455,532	1,853,525	176	0	53	-41	0	43	315	1,2	No
Glenlean	13	Junction of Glenlean and Kings Rds in Southey's paddock	BP35 Bideford	5,455,566	1,846,983	175	56	14	-41	0	49	285	1,2	No
Stronvar North	14	Whareama Rd-Kings Rd corner	BP35 Bideford	5,455,167	1,848,878	175	57	35	-41	1	0	315	1,2	No
Stronvar North	15	Puketiritiri Rd Gate		5,453,491	1,848,250	175	57	10	-41	1	55	280	1,2	No
Stronvar North	16	Puketiritiri Rd-Ngahape Rd corner		5,452,332	1,845,208	175	55	2	-41	2	36	260	1,2	No
Stronvar North	17	Ngahape Rd-Kintail Rd corner		5,449,182	1,847,219	175	56	33	-41	4	15	345	1,2	Yes
Stronvar South	18	Double gates Ngahape rd		5,446,528	1,847,143	175	56	33	-41	5	5	265	1	No
Stronvar South	19	Ramfords Rd/Trampers Rd corner. Access from there into Tathams		5,442,518	1,848,765	175	57	49	-41	7	50	315	1	No
		Rabbit Road											1,2	No
		Ngahape Road - School Bus turnaround											1,2	Yes
Headquarters	20	Ngahape Rd-Nursery Rd gate	BP35 Bideford	5,453,007	1,842,737	175	53	16	-41	2	16	240	1,2	No
Headquarters	21	End of Birthday Hill Rd. Access into Loader's property		5,449,690	1,842,641	175	53	16	-41	4	4	245	1,2	No
Poroporo	22	Logyard	BP35 Bideford	5,445,632	1,838,549	175	50	27	-41	6	20	215	1,2	Yes
Poroporo	23	Triangle - Ngaumu Rd-Via Dolorosa	and	5,443,197	1,838,217	175	50	16	-41	7	39	235	1,2	No
Poroporo	24	Barley Flats- Te Wharau Rd	BQ35 Te Wharau	5,439,905	1,834,152	175	47	27	-41	9	30	320	1	No
Davidsons	25	Flat Point-Kaiwhata Rd corner	BQ35 Te Wharau	5,437,125	1,837,623	175	49	59	-41	10	54	240	1	No
Davidsons	26	Kaiwhata-Bismark Rd corner		5,437,012	1,840,942	175	52	21	-41	10	57	265	1	No
Davidsons	27	Flat Point-Craigie Lea Rds corner		5,431,750	1,839,410	175	51	23	-41	13	49	200	1	No
Davidsons		Glenburn Gateway on Craigie Lea		5,430,534	1,837,825	175	50	17	-41	14	30	195	1	No
Davidsons		Scott's Rd and Flat Point Rd corner		5,432,580	1,839,239	175	51	51	-41	13	22	200	1	No
Davidsons		Kaiwhata Rd Howard's gateway		5,437,081	1,841,862	175	53	53	-41	10	54	340	1	No

potential new sites
dubious sites

Extracts from JNL Wairasrapa Emergency Management Plan 2014-15

Responsibilities:

General

- It is the responsibility of every staff member, contractor and access permit holder to prevent incidents occurring. The Forest Manager must approve any action that may increase the risk of an incident but which can be justified for economic or operational reasons, before the taking of this action.
- Whenever anyone becomes aware of any incident that has, or may, harm or threaten any person or thing, they must immediately inform JNL by the best means possible.
- After reporting any such incident, people in the immediate vicinity must take all practicable steps (subject to personal safety not being compromised) to contain and control the incident.

Rural Fire

- **All JNL Forests lie within the area of responsibility of the Wairarapa Rural Fire District which has the ultimate responsibility for rural fire suppression**.
  All fire suppression activities within JNL forests must be undertaken in conjunction

Priorities

- At all times the saving of human life must take priority over all other actions.
- Fire Control operations take priority over all other actions except where danger to life exists.
- If more than one incident occurs at the same time, resources must respond to all incidents. Outside resources must be used when available. These outside resources must be sourced through the Fire Authority. If sufficient resources are not available to control all incidents, the Incident Controller must decide the order in which resources will be used at each fire.

Precautions

- Every precaution must be taken to avoid increasing the risk of incident. Where for operational or economic reasons the risk is likely to be increased the approval of the Manager must be sought.

Reporting of Incidents

- All incidents, fire, environmental, health and safety etc., and including any near hits, are to be reported to JNL. Any smoke or fire on, or near JNL's forests are to be reported to JNL Forest Office immediately all year round.
- Any fires which are to be notified to the WRFD PRFO **must be made via the 111 system**.
  Where applicable, the Forest Manager is to report to Head Office & the Company's insurance agent, by the fastest possible means - all incidents which may have a significant financial impact and occurring in, or threatening, Juken New Zealand Ltd forests at any time of the year

Fire Equipment for Forest Crews

The following is the minimum to be kept on hand solely for fire fighting or emergency purposes, 12 months of the year

- **All crews, and including JNL Supervisory vehicles**:
  - 1 Knapsack pump for every 6 men.
  - 1 Shovel per man.
- In the event that a crew transport vehicle is called away, fire tools, communications equipment, and a first aid kit are to be left with the crew.
- Hand tools and PPE must travel daily with crew and not be left on site.
- Where the crew transporter carries more than one crew, each crew will be left a share of the tools.
- In the event of crews being called away to attend a fire elsewhere, they will take the hand tools with them.

Spark Arrestors

- All fuel driven machinery operating within JNL forests will be fitted with efficient spark arrestors.
- Diesel driven trucks must have a spark arrestor preferably discharging vertically upwards at least 23 cm above the cab, or a spark arrestor muffler with a tailpipe exhaust directed backward and discharging within the track width. Side delivery pipes are not permitted.
- Diesel powered vehicles with no spark arrestors must have attached, on the right hand side of the vehicle, a side delivery exhaust pipe fitted with a wire mesh envelope
- Petrol driven or LPG-powered vehicles are to be fitted with an efficient conventional exhaust system which discharges vertically upwards as far as possible above the top of the cab, or a tailpipe exhaust aligned or protected to ensure that sparks are not discharged other than over the width of the track of the vehicle.

Fire Extinguishers

- All plant and vehicles operating in a Juken New Zealand Ltd area must be fitted with a chemical extinguisher (ABC dry powder not less than 0.9 kg) and one shovel all year round. Machines working in circumstances likely to cause an accumulation of debris around the motor must be fitted with a pressurised foam extinguisher of not less than 9.1 litres of capacity, in addition to a chemical extinguisher.
- All chainsaw operators will carry an extinguisher (350 grams approximately) or equivalent and each group of operators will have a long handle shovel per man and Rega Knapsack Pump available in the immediate vicinity.
- All extinguishers (except chainsaw operator ones) to be checked annually by a specialist and carry the yellow tag as proof of check

RAPID FIRE NUMBERS

MASTERTON COUNCIL AREA			
CASTLEHILL	**Key No.**	**RAPID No.**	**Road name**
Browns West	T1.2	1940	Alfredton Tinui Rd
Browns East	T1.3	2066	Alfredton Tinui Rd
Ashley	T1.4	2070	Alfredton Tinui Rd
Woodstave West	T1.5	2145	Alfredton Tinui Rd
Woodstave East	T1.6	2243	Alfredton Tinui Rd
TINUI			
Tinui	T2.2	4756	Masterton Castlepoint Rd
Peach Grove	T2.3	4796	Masterton Castlepoint Rd
Maunsell Dam	MD		
Maunsell Forest	T5.5	5031	Masterton Castlepoint Rd
WHAREAMA			
Poplar Flats	T3.2	160	Homewood Rd
Waihora	T3.3	186	Waihora Rd
Putinka Forest	PF	Opp Langdale Churcl	Blairlogie Langdale Rd
STRONVAR			
To Glenlean	nil	277	Puketiritiri Rd
Southey	nil	368	Puketiritiri Rd
Puketiritiri	T3.3	454	Puketiritiri Rd
Spur Rd	nil	52	Kintail Rd
Kintail	T3.4	102	Kintail Rd
Wires	nil	3015	Ngahape Rd
Barts	nil		Ngahape Rd
Cpt 380 Rd	T3.5	3033	Ngahape Rd
Kaiwhata	T3.6	3085	Ngahape Rd
Deans	T3.7	3085	Ngahape Rd
Seaview	T3.8	3239	Ngahape Rd
Lennies	T3.9	3245	Ngahape Rd
Syndicate	7.8	3371	Ngahape Rd
HEADQUARTERS			
Boudary Rd	T4.2	2338	Masterton Stronvar Rd
Birthdayhill Rd	T4.3	2270	Masterton Stronvar Rd
Macrocarpa Track	T4.4	2222	Masterton Stronvar Rd
Nursery Rd	T4.5	2188	Masterton Stronvar Rd
Chalmers rd	T4.6	2118	Masterton Stronvar Rd
POROPORO			
Western Ridge	T5.2	756	Ngaumu Rd
Ridgeways	T5.3	796	Ngaumu Rd
Logyard	T5.4	880	Ngaumu Rd

CARTERTON COUNCIL AREA			
POROPORO	**Key No.**	**RAPID No.**	**Road name**
Barley Flat	T5.5	1380	Barley Flat Rd
Daniel Rd	nil	88	Bismark Rd
Bismark gate	T5.6	168	Bismark Rd
DAVIDSONS			
Nuku Rd	nil	560	Kaiwhata Rd
Davidsons	T6.2	464	Kaiwhata Rd
Cpt 123	nil	372	Kaiwhata Rd
Te Puke	T6.3	296	Kaiwhata Rd
Homestead	T6.4	194	Kaiwhata Rd
Saddle	T6.5	2674	Te Wharau Rd
Gourlays	T6.6	2802	Te Wharau Rd
Scotts	T6.7	2900	Te Wharau Rd
Wha	nil	3090	Te Wharau Rd
Cpt 228	nil	3125	Te Wharau Rd
Scrofa	nil	3197	Te Wharau Rd
Cpt 227	nil	3205	Te Wharau Rd
Transmission	T6.10	3237	Te Wharau Rd
Moses	T6.9	3258	Te Wharau Rd
McGuinness	T6.8	3258	Te Wharau Rd
??	nil	3287	Te Wharau Rd
Lands End	nil	8	Craigie Lea Rd
Mapapa	nil	172	Craigie Lea Rd

Section Six

Prescriptions,

Work Standards,

Resource Consents

and

Permitted Activity Conditions

Application for a resource consent for an activity described in Rule 1

An application for a resource consent for an activity described in Rule 1 shall be made in accordance with section 5.4 of the Plan.

Explanation. *Any effects of roading and tracking activities undertaken in accordance with a subdivision consent will be managed by conditions attached to that consent.*

The terms "roading and tracking activity", "erosion prone land", "Area 1", "Area 2" and "water body" are defined in the Interpretation in section 3 of the Plan.

Rule 2 Soil disturbance on erosion prone land

Any soil disturbance on erosion prone land that:

(1) involves the disturbance of greater than or equal to 1,000 m^3 of soil, within any 10,000 m^2 area (calculated using a minimum width of 10 m) and within any continuous 12 month period; or

(2) involves root raking over an area greater than 10,000 m^2 in any continuous 12 month period;

excluding any soil disturbance;

(a) associated with roading and tracking activities, or

(b) undertaken in accordance with conditions on a subdivision consent;

is a **Restricted Discretionary Activity**.

Discretion

The matters over which the Wellington Regional Council has restricted the exercise of discretion are:

(1) the duration of the consent;

(2) the carrying out of measurements, samples, analyses, surveys, investigations, or inspection;

(3) the provision of information to the consent authority at specified times;

(4) compliance with monitoring, sampling and analysis conditions at the consent holder's expense;

(5) the payment of administration charges;

5.3 Rules for Vegetation Disturbance

Rule 3 Vegetation disturbance on erosion prone land

Vegetation disturbance, excluding vegetation disturbance undertaken in accordance with conditions on a subdivision consent, of a continuous area of more than one hectare on erosion prone land is a **Permitted Activity** provided the following conditions are met:

Conditions

(1) The Wellington Regional Council's Regional Soil Conservator is notified in writing at least 21 days prior to the vegetation disturbance being undertaken. Notification is to include details of the site location and timing of the vegetation disturbance operation.

(2) The area of vegetation disturbance will be re-established in woody vegetation within 18 months from the start of the vegetation disturbance operation.

(3) Where ground-based methods are used, best management practices as described in the New Zealand Forest Code of Practice (LIRO 1990, revised 1993) are adopted.

(4) No vegetation or slash with a diameter of greater than 100 mm shall be allowed to remain in any watercourse and when removed, shall be placed in a position where that material cannot enter any watercourse.

Explanation. *The terms "vegetation disturbance", "erosion prone land" and "watercourse" are defined in the Interpretation in section 3 of the Plan.*

5. Regional Rules

5.1 Guide to the Regional Rules for Uses of Land

The rules in this Plan restrict some uses of land described in section 9(4) of the Act. Section 9 is permissive, that is, any use of land is allowed as of right unless it is specifically restricted by district rule or a regional rule. This means that any use of land that is not described in any of the rules in this Plan can proceed without a resource consent from the Council. This does not exempt people from complying with the requirements of district plans, and other regional plans that apply in the Wellington Region.

The uses of land restricted by regional rules in this Plan are as follows:

Soil disturbance

Rule 1	Restricted Discretionary Activity	Roading and tracking
Rule 2	Restricted Discretionary Activity	Disturbance of more than 1,000 cubic metres of soil on erosion prone land

Vegetation Disturbance

Rule 3	Permitted Activity	Disturbance of more than one hectare of vegetation on erosion prone land
Rule 4	Restricted Discretionary Activity	Disturbance of more than one hectare of vegetation on erosion prone land and not complying with the conditions of Rule 3

5.2 Rules for Soil Disturbance

Rule 1 Roading and tracking

Any roading or tracking activity that is:

(1) located in Area 1 and, during any 12 month period, will result in a road or track having a continuous length of new upslope batter extending for greater than 200 metres, with a height of greater than 1.5 metres measured vertically; or

(2) located in Area 2 and, during any 12 month period, will result in a road or track having a continuous length of new upslope batter extending for greater than 200 metres, with a height of greater than 2 metres measured vertically;

excluding any roading or tracking activity that is

(a) undertaken in accordance with conditions on a subdivision consent;

is a **Restricted Discretionary Activity**.

Discretion

The matters over which the Wellington Regional Council has restricted the exercise of its discretion are:

(1) the duration of the consent;

(2) the carrying out of measurements, samples, analyses, surveys, investigations, or inspection;

(3) the provision of information to the consent authority at specified times;

(4) compliance with monitoring, sampling and analysis conditions at the consent holder's expense;

(5) the payment of administration charges;

(6) the methods of sediment retention and sediment run-off control to be adopted;

(7) any measures necessary to rehabilitate the land following the completion of the activity;

(8) the effects of the activity on soil conservation and water quality, including any measures necessary to avoid, remedy or mitigate those adverse effects;

(9) any steps to be taken to ensure the minimisation of vegetation, soil, slash or any other debris entering any water body;

(10) any steps to be taken to avoid, remedy or mitigate the effects of the activity on slope stability; and

(11) the effects of the activity on tangata whenua values.

Notification

Applications for resource consent under Rule 1 will be considered without notification or the need to obtain written approval of affected persons in accordance with section 94 of the Act, except where the consent authority considers that there are special circumstances which justify notification or the obtaining of written approval from affected persons.

Rule 40 Removal of vegetation

The trimming and removal of vegetation from the bed of any river or lake:

- to avoid or mitigate the adverse effects of flooding or erosion, or
- for the purpose of protecting structures;

which is not in a river or lake bed identified in Policy 4.2.10 (Appendix 2 - water bodies with a high degree of natural character) is a **Permitted Activity** provided it complies with the conditions listed below.

Conditions

(1) No contaminants (including but not limited to oil, petrol, diesel, paint, or solvent) shall be released to the river bed from equipment being used for the operation, and no refuelling of equipment shall take place on any area of river or lake bed.

(2) All reasonable steps shall be taken to minimise the release of sediment to water during the activity.

(3) In any part of the river or lake bed covered by water in any water body identified in Policy 4.2.14 (Appendix 4 - Water bodies with important trout habitat), the activity shall not take place between 31 May and 31 August.

(4) There shall be no disturbance to nesting Banded Dotterels (*Charadrius bicinctus*), Black Fronted Dotterels (*Charadrius melanops*), Black Billed Gulls (*Larus bulleri*), Pied Stilts (*Himantopus leucocephalus*), or Variable Oystercatchers (*Haematopus unicolor*) South Island Pied Oystercatcher (*Haematopus ostralegus*), Caspian Terns (*Sterna caspia*), White-Fronted Terns (*Sterna striata*), and Spur-Winged Plover (*Vanellus miles*).

(5) Public access shall not be restricted more than is necessary to complete the removal of vegetation.

(6) No machinery shall be left overnight in an area of river or lake bed covered by water.

(7) All equipment and materials used for the removal of vegetation shall be removed from the river or lake bed on completion of the operation.

Note: *The spray application of agrichemicals over water bodies or over river and lake beds is addressed in the Regional Air Quality Management Plan.*

JNL WAIRARAPA FORESTS – HARVESTING OPERATIONAL STANDARDS

These operational standards are to be read in conjunction with the following, and are not meant to be read as replacing any standard in the listed documents. Rather, these Operational Standards are meant to supplement and to clarify JNL's minimum operational expectations. The list below are the key documents and must not be taken as the only documents to which compliance is required

- *JNL Operational prescriptions and Hazard IDs*
- *JNL Safety Rules*
- *JNL's IMS*
- *Approved Code of Practice for Safety and Health in Forest Operations*
- *New Zealand Environmental Code of Practice for Plantation Forestry – NZFOA*
- *New Zealand Forest Road Engineering Manual – NZFOA*
- *New Zealand Forest Road Engineering Manual – Operators guide NZFOA*
- *Best Practice Guidelines – FITEC*
- *Safe Retreat Position Standard*
- *Conditions of any District or Regional Council Permitted Activity status, or where issued, Resource Consent*
- *Conditions of any issued Authority issued under the Conservation Act or Historic Places Act*
- *Conditions of any Traffic Management Plan approved by the relevant road controlling authority.*

This general specification is for the management of harvesting operations, and is inclusive of:

- Felling,
- hauling,
- skid management,
- minor earthworks, and
- environmental management including slash placement and water control

Significant Non-Plantation Forest Areas

In all areas identified as Significant Non-Plantation Forest, there shall be no operational activities permitted which may have an environmental impact on these areas/waterways unless specifically authorised in writing by a JNL supervisor.

Tree Felling

- The felling of any indigenous tree, or group of trees within the felling area, is prohibited unless there are safety or logistical reasons requiring they be felled. Felling decisions may only be made after consultation between the JNL supervisor and the Contractor.
- Any exotic plantation tree species over 2 metres in height is to be felled whether it is alive or dead, merchantable or non-merchantable. This instruction does not include indigenous vegetation areas or exotic plantation trees in Significant Non-Plantation Forest Areas or riparian margins unless specifically instructed by JNL.
- Felling boundaries are to be agreed to prior to felling commencing

- Tree stump height shall be as low as practicable with a maximum of 20cm above ground on the uphill side of the stump. Exceptions may be made where higher stumps are required for reasons of safety during felling, and for the provision for guyrope or tailhold stumps.
- Felling of trees shall be carried out to avoid any damage to, or placement of debris into:
    - Areas classified as Significant Non-Plantation Forest; or
    - Waterways classified as Significant Waterways; or
    - Neighbouring properties; or
    - Adjacent stands; or
    - Any other area specified and detailed on the Prescription map
- Where a Contractor believes the only option is to fell trees contrary to this instruction, the final felling decision may only be made after consultation between the JNL supervisor and the Contractor, and will only be allowed for safety or environmental impact reasons.
- Remedy of any impact from the breach of any felling rule shall be at Contractor's expense.
- 1 in 10 trees to be marked with felling date on the butt
- Where JNL has marked boundary lines for any reason, e.g. road line clearing, trees are to be felled up to, but not including, the marked trees.

Placement of log stacks on landings

- Log stacks will not exceed the agreed storage quantity. When the agreed quantity level is reached, all processing on the landing must cease until log stocks have been reduced to below the maximum agreed.
- Log stacks shall be placed in a manner so that where, in the event of a stack collapse or other event, logs cannot enter any waterway, Significant Non-Plantation Forest Area, or operational area.
- Log stacks are not permitted to be placed in roadside watertables where doing so may impede waterflow.
- Any stacks left on site at the completion of the operation shall not exceed 3 metres in height, and shall be left in a stable condition

Stencilling of processed stems

- 1 in every 5 logs is to be marked with Crew ID and FSC logo, and where required, the Log Grade

Logging slash in Significant Waterways

- Contractors are responsible for taking all practicable steps to ensure that no slash enters any Significant Waterways
- Where material has entered any Significant Waterways, the Contractor is responsible, at the Contractors cost, for removing all material over 100mm in diameter. Material removed must be placed a safe distance from the waterway so it will not re-enter the waterway.
- JNL's Stream Slash Management Procedure must be followed

Logging slash on landings

- Slash is only to be placed at sites shown on the Slash and Logging Debris Placement plan.
- The Contractor is responsible at the Contractor's cost to ensure slash is contained on the landing or on retaining benches which will be constructed by JNL, during the formation of the landing, or during the installation of deadmen.

- If the amount of slash being placed is likely to exceed the capability of the site or retaining bench to hold it, the Contractor and JNL supervisor will jointly determine a new site to place the slash well before the original site is overloaded.
- In wet conditions, some slash may be used as a running surface for machines to minimise soil disturbance.
- Contractors will not permit slash to enter or damage any area identified as Significant Non-Plantation Forest adjacent to any landing

Use of corduroy on landings

- Use and placement of corduroy must be approved by JNL prior to use in every case.
- Corduroy may be approved for use as a work platform for machinery and cartage trucks.
- All corduroy used must be placed so that it is possible for maintenance machinery to be able to use buckets etc. to clean watertables.
- Corduroy left in place on landings, approach roads, truck turnarounds and service areas must be fully buried on completion, or lifted out and stacked neatly before the site is cleared.
- Where JNL considers that the removal of corduroy from the site is essential for landing rehabilitation for replanting, the Contractor will remove the material and place where directed. The cost of this will be borne by JNL where it has approved of its original placement.

Earthworks and minor tracking

- Any temporary stream crossings shall be dis-established by the Contractor on completion of use. The crossing shall be re-instated to a condition which allows free passage of water, and in a manner that complies with any Resource Consent or other instruction.
- On completion of the works, water controls must be put in place in the following situations:
  - All machine tracks used for ground based log extraction;
  - Backlines and tracks used by machinery used as mobile tailholds;
  - Tracks used to install or remove deadmen.

Post-operational water control

- Contractor is to ensure, at their expense, that on completion of the works, all roads, watertables and culverts are cleared of logging slash.
- All woody debris must be removed from within 1 metre of the edge of any watertable. Where no watertable exists, material must be removed back to at least beyond the first line of stumps, or to where it will not provide issues with vehicle turning bays or parking areas. This is to be carried out at Contractor cost.
- Where JNL's planning results in the extraction of logs over roads, or where JNL has directed that hauling and processing is to occur on forest roads, the re-instating of watertables and reshaping of road surfaces will, where required, be carried out at JNL's cost.
- In all other instances, road surface and watertable damage will be corrected as Contractor's expense.

Landing dis-establishment

- On completion of all operations on the landing, the landing shall be left in a tidy condition. Personal (lunch wrappers, drink bottles etc.) and operational rubbish (discarded wire rope,

grease cartridges, oil containers, rope spools etc.) is to be removed from the site before final clearance is given.

- Contractors shall, at their expense,
    - retrieve as much slash and logging waste as possible from retaining benches or from the area surrounding the landing, and place it in piles on the landing, and at least 1 metre back from the edge of the landing
    - blade or sweep the landing to leave a surface free of ponds where water may collect and sit.
    - Soil bladed is not to be used to cover or bury harvesting slash. Any soil and material bladed off is to remain on the landing, and at least 1 metre back from the edge of the landing

Road signage

- Any JNL signage that may be affected by the operation must be taken down prior to the operation commencing, and re-instated immediately on completion. Signs or posts broken or damaged will be replaced at contractor's expense.
- Operations (including tree felling) within 2 tree lengths of any JNL road must have signage compliant with the Approved Code of Practice for Safety and Health in Forest Operations
- Operations (including tree felling) within 2 tree lengths of any public road must have signage compliant with any Traffic Management Plan issued by the relevant road controlling authority.

Sapstain Prevention

- Sapstain is a problem which is more prominent during the September to November and February to March periods
- To minimise the opportunity for trees to be stained especially during these periods, the time between felling and delivery to customers should not exceed 7 – 10 days.
- Log stocks must be rotated to allow the oldest stocks to be loaded out first.

JNL WAIRARAPA FORESTS – EARTHWORKS OPERATIONAL STANDARDS

These operational standards are to be read in conjunction with the following, and are not meant to be read as replacing any standard in the listed documents. Rather, these Operational Standards are meant to supplement and to clarify JNL's minimum operational expectations. The list below are the key documents and must not be taken as the only documents to which compliance is required

- *JNL Operational prescriptions and Hazard IDs*
- *JNL Safety Rules*
- *JNL's IMS*
- *Approved Code of Practice for Safety and Health in Forest Operations*
- *New Zealand Environmental Code of Practice for Plantation Forestry – NZFOA*
- *New Zealand Forest Road Engineering Manual – NZFOA*
- *New Zealand Forest Road Engineering Manual – Operators guide NZFOA*
- *Best Practice Guidelines - FITEC*
- *Conditions of any District or Regional Council Permitted Activity status, or where issued, Resource Consent*
- *Conditions of any issued Authority issued under the Conservation Act or Historic Places Act*
- *Conditions of any Traffic Management Plan approved by the relevant road controlling authority.*

This general specification is for the construction, maintenance and metalling of forest access including new and upgraded forest roads and landings, inclusive of:

- Construction of road formation
- Installation of culverts and all water management systems, (water tables, berms, cut-out pipes and drains, flumes and silt traps), to all formations both roads and landings.
- Supply, cart, spread and compact aggregate for road formation.
- Construction of landings as directed.
- Road maintenance (grading, slips, drop outs etc).

Road Formation Construction

Road formation construction entails the construction of the subgrade to the standard specified including removal of stumps, all earthworks involved in the cut and fill operation, and grading and compaction as specified prior to metal application.

- Road Formation General
  - The final location and alignment of the road shall be controlled by JNL so as to meet the specified construction criteria of gradient/slope and width. Changes to location and alignment must be authorised by JNL.
  - All stumps and logging residue shall be removed and placed in a location away from watercourses, and crop trees, and in such a position where they will remain stable and not create a hazard for subsequent harvesting operations.
  - Stumps and logging residue may be securely stored on the edge of fill benches to create a silt trapping windrow. Fill is not to be backed into/onto this windrow.

- Construction details are:

- The road formation, measured from the middle of the watertable on one side to the middle of the water table on the other side, shall be formed to a minimum width of 6.0 metres.
- The maximum adverse gradient of the road shall be 1 in 6 (17%) with the load. These maximums are allowable for short distances in difficult topography only. Gradients of 1 in 8 (12.5%) or less will tried to be maintained wherever possible.
- Water tables shall be excavated to a minimum depth of 0.35 metres and to a minimum width of 1.0 metres, and shall be free draining and clear of debris. Rocky areas may require shallower watertables than wet or sandy areas.
- Where required berms shall be formed to dimensions that suit the purpose of the berm.
- Cutouts in the berm shall be formed where necessary.
- The road shall be graded to form a crown providing a 2 -3 % camber.
- Passing bays shall be constructed at no more than one (1) kilometre spacings. Road intersections or landings may provide adequate additional areas.

- Sidecut Construction
  - Construction of the initial pilot track and benching shall be carried out with a bulldozer or excavator.
  - No spoil from road construction shall be discharged into any standing crop trees or watercourse, and shall be placed in such a position where it will remain stable.
  - All cut batters shall be trimmed and left in a tidy condition. The face slope of cut batters shall be of such a slope to prevent slumping. The angle of this will depend on soil type. Unstable batters shall be stepped.
  - Soil cut from the road line may be re-used in compacted fills providing all organic material is first removed.

- Fill Areas
  - All fill shall be thoroughly compacted, with machinery that (a) suits the material being compacted and (b) the site on which it is being placed.
  - All organic material topsoil, vegetation and soil unsuitable as fill shall be stripped from all areas to receive fill and placed in a stable location away from the work area, watercourses, and crop trees, and in such a position where it will remain stable.
  - Only suitable material is to be used as fill. Fill material shall be free of all organic material, including vegetation and topsoil. Where the side slope is greater than 30% fill must be placed on a bench. The bench shall slope inwards at 8% and be of sufficient width to allow for compaction.
  - Fill material shall be placed in level layers not exceeding 250mm loose depth, and shall be compacted by suitable mechanical compaction equipment. Such equipment could include track rolling, sheep's foot rollers, or vibration drum rollers (self propelled or towed).
  - Fill slopes shall be left in a tidy condition, with the face slope at a suitable angle to prevent slumping.

- Stabilisation of Batter slopes, fill areas and Side cast
  Where required by Resource Consent, or where areas will not be replanted within 18 months, batterslopes, fill areas and sidecast areas will be oversown with grass species to provide stabilisation and minimisation of sediment travel

- Weak Subgrade
  In the event that sections of subgrade lack sufficient strength due to inherently weak parent material these areas may at the discretion of JNL be corduroyed.

Culvert Installation

- Culverts shall be marked by ground contact preserved battens, painted white erected at each end of the pipe.
- All culverts for road storm water management shall be a minimum of 300mm inside diameter.
- All culvert installation shall be carried out by hydraulic excavator
- Where practicable culverts shall be positioned so that discharge is on to solid ground and does not result in scouring.
- Where culverts discharge onto fill areas or sidecast, they will be flumed until the water can discharge on solid ground.
- Sediment traps shall be formed at culvert entrances at JNL's discretion..
- The falling gradient of all culverts shall be not less than 1 in 25 (2^{o}).
- Culverts shall be founded on a base such that the whole barrel length makes uniform contact with the prepared foundation.
- Pipe jointing shall be carried out in accordance with the manufacturer's recommendations and the finished joints shall present a smooth invert surface.
- Backfill over the culverts shall be free of any large stones and placed to a minimum compacted depth of 450mm over the top of pipe level. As back fill occurs then compaction must occur to ensure the culvert is fully supported.

Metalling of Road Formation

- Metalling must occur as soon as practicable after formation is completed.
- Metal will be preferably carted direct from supplier stockpiles and applied directly to the road. However, stockpiling of metal may occur as and when directed by JNL
- The road surface shall be dry and firm prior to metal application.
- The entire length of formed subgrade shall be overlaid with road metal to a carriage width of 4.0 metres and graded to an even depth. The metal surface shall be left with a crown providing a 2 - 3% camber.
- The entire length shall then be rolled to provide a solid formation capable of supporting continuous metal truck traffic without any apparent failure by rutting. Depending on the metal being used, the subgrade strength and the slope of the road, different treatments such as metal layering and compaction with rollers may be necessary.
- The depth, width and volume of metal will be stated in the Prescription. JNL shall be consulted if extra metal is considered necessary. Only the metal type described on the Prescription shall be used.
- Metalling of new formation must occur in conjunction with a grader and a compacting roller or excavator.

Landing Construction

Landing construction includes removal of stumps, all earthworks involved in the cut and fill operation, construction of landing drainage, and grading of the landing surface.

- The final location will be as advised in the Prescription. Any relocation must be approved by JNL.
- All stumps and logging residue shall be removed and place in a stable location away from watercourses, and crop trees, and in such a position where they will remain stable. Stumps and logging residue may be securely stored on the edge of fill benches to create a silt trapping windrow. Fill is not to be backed into/onto this windrow.
- The configuration of the landing shall be as considered functional and to the satisfaction of JNL.

- Where required a continuous berm shall be formed around the entire landing to dimensions that suit the purpose of the berm.
- Cutouts shall be formed in the berm to allow discharge of storm water to solid ground, or to sediment traps formed in solid ground. Flumes may be required to direct the water to solid ground
- The landing shall be sloped so that drainage is through the formed cutouts and away from fill batters.
- The junctions of landing and roadway shall be shaped so as to manage storm water flows and not create catchments which shall exaggerate flows and damage potential.
- Working surfaces of landings will not be metalled. Harvesting slash or corduroy will be used as a buffer between machinery and the soil surface.
- Where topography allows, an area shall be provided adjacent to each site suitable for the parking of three light vehicles plus provision for the logging trucks to turn around. These sites may, at JNL's discretion, be metalled

Cut Areas

- No spoil from landing construction shall be discharged into any standing crop trees or watercourse, and shall be placed in such a position where it will remain stable.
- All cut batters shall be trimmed and left in a tidy condition. Unstable batters shall be stepped.

Fill Areas

- There shall be no vegetation in the fill material
- Fill material shall be placed in level layers not exceeding 250mm loose depth, and shall be compacted by suitable mechanical compaction equipment. Such equipment could include track rolling, sheep's foot rollers, vibration drum rollers (self propelled or towed).
- Fill slopes shall be left in a tidy condition.

Road signage

- Any JNL signage that may be affected by the operation must be taken down prior to the operation commencing, and re-instated immediately on completion. Signs or posts broken or damaged will be replaced at contractor's expense.
- Operations within 2 tree lengths of any JNL road must have signage compliant with the Approved Code of Practice for Safety and Health in Forest Operations
- Operations within 2 tree lengths of any public road must have signage compliant with any Traffic Management Plan issued by the relevant road controlling authority.

JNL WAIRARAPA FORESTS – ROAD MAINTENANCE OPERATIONAL STANDARDS

These operational standards are to be read in conjunction with the following, and are not meant to be read as replacing any standard in the listed documents. Rather, these Operational Standards are meant to supplement and to clarify JNL's minimum operational expectations. The list below are the key documents and must not be taken as the only documents to which compliance is required

- *JNL Operational prescriptions and Hazard IDs*
- *JNL Safety rules*
- *JNL IMS*
- *Approved Code of Practice for Safety and health in Forest Operations*
- *New Zealand Environmental Code of Practice for Plantation Forestry – NZFOA*
- *New Zealand Forest Road Engineering Manual – NZFOA*
- *New Zealand Forest Road Engineering Manual – Operators guide NZFOA*
- *Best Practice Guidelines - FITEC*
- *Conditions of any District or Regional Council Permitted Activity status, or where issued, Resource Consent*
- *Conditions of any issued Authority issued under the Conservation Act or Historic Places Act*
- *Conditions of any Traffic Management Plan approved by the relevant road controlling authority.*

This general specification is for the maintenance forest earthworks assets, and includes the management of deadmen on landings for harvesting operations, roads, and including new and upgraded forest roads and landings, inclusive of:

- Road maintenance (grading, slips, drop outs etc.)
- Installation of culverts and water management controls.
- Supply, cart, spread and compact aggregate for road maintenance.
- Placement and removal of deadmen for harvesting operations as directed.
- Mowing of roadside verges

<u>Road Formation General</u>

- Spoil from earthflows onto roads shall be placed where the material cannot get into waterways, areas of Significant Non-Plantation Forest, or into standing crop trees. Where it is required, material shall be trucked away to a secure site
- Road subsidence options for repair must be discussed with a JNL supervisor. Small areas may be filled with a suitable material or corduroyed, and water controls installed to divert water away from the area of subsidence
  Where there are areas of greater slumping caused by large earth movements, the sealing of any cracking and the installation of good water controls may be the only option available. These areas should be monitored regularly until they settle down due to drying conditions.
- Roadside dropouts shall, where possible, be repaired by rebuilding the outside of the road until the original road width is restored. A bench should be constructed and suitable material placed and compacted on the bench until this is achieved. Sometimes it will be necessary to build a retaining wall to confine the fill. A berm constructed around the topside of the rebuild will stop water from entering the new fill.
  If it is not practicable to build up the outside the other option may be to widen the road on the inside, or install Novaflow and fill in the water table drain.

Options must be discussed with a JNL supervisor first.

- Any stumps and logging residue shall be removed and placed in a location away from watercourses, and crop trees, and in such a position where they will remain stable and not create a hazard for subsequent harvesting operations.
- The road shall be graded to form a crown providing a 2 - 3% camber.
- Passing bays shall be maintained at no more than one (1) kilometre spacing. Road intersections or landings may provide adequate additional areas.
- All cut batters shall be trimmed and left in a tidy condition. The face slope of cut batters shall be of such a slope to prevent slumping. The angle of this will depend on soil type. Unstable batters shall be stepped.
- All fill shall be thoroughly compacted, with machinery that (a) suits the material being compacted and (b) the site on which it is being placed.
- All organic material topsoil, vegetation and soil unsuitable as fill shall be stripped from all areas to receive fill and placed in a stable location away from the work area, watercourses, and crop trees, and in such a position where it will remain stable.
- Only suitable material is to be used as fill. Fill material shall be free of all organic material, including vegetation and topsoil. Where the side slope is greater than 30% fill must be placed on a bench. The bench shall slope inwards at 8% and be of sufficient width to allow for compaction.
- Fill material shall be placed in level layers not exceeding 250mm loose depth, and shall be compacted by suitable mechanical compaction equipment. Such equipment could include track rolling, sheep's foot rollers, or vibration drum rollers (self propelled or towed).
- Fill slopes shall be left in a tidy condition, with the face slope at a suitable angle to prevent slumping.
- Where required, batter slopes, fill areas and side cast areas will be oversown with grass species to provide stabilisation and minimisation of sediment travel

Water controls

- Water tables (and including water control channels on landings) shall be excavated to a minimum depth of 0.35 metres and to a minimum width of 1.0 metres, and shall be free draining and clear of debris.
- Where required berms shall be formed to dimensions that suit the purpose of the berm.
- Cut-outs in the berm shall be formed onto solid ground where necessary.
- Sediment traps shall be formed at the direction of JNL as required.
- Culverts shall be marked by ground contact preserved battens, painted white erected at each end of the pipe.
- All culverts for road storm water management shall be a minimum of 300mm inside diameter.
- All culvert installation shall be carried out by hydraulic excavator
- Where practicable culverts shall be positioned so that discharge is on to solid ground and does not result in scouring.
- Where culverts discharge onto fill areas or side cast, they will be flumed until the water can discharge on solid ground.
- The falling gradient of all culverts shall be not less than 1 in 25 (2°).
- Culverts shall be founded on a base such that the whole barrel length makes uniform contact with the prepared foundation.
- Pipe jointing shall be carried out in accordance with the manufacturer's recommendations and the finished joints shall present a smooth invert surface.

- Backfill over the culverts shall be free of any large stones and placed to a minimum compacted depth of 450mm over the top of pipe level. As back fill occurs then compaction must occur to ensure the culvert is fully supported.

Metalling of Roads

- Metal will be preferably carted direct from supplier stockpiles and applied directly to the road. However, in forest stockpiling of metal may occur as and when directed by JNL
- The road surface shall be dry and firm prior to metal application.
- Road metal will be compacted as required by JNL

Grading of roads

- Grading of roads will be carried out to ensure:
    - the road is left with a crown to assist with shedding water from the road surface
    - sufficient cutouts are installed or maintained to ensure surface water can flow off the road surface into formed water tables

Installation and removal of deadmen for harvesting operations

- The final location will be as advised by the Harvesting Contractor.
- Deadmen pits shall typically be at least 4 metres deep – this will be dependant to some extent on soil type and strength. Logs should be longer than 5 metres. Larger logs (over 50cm) should be used where possible. Where this is not possible, the deadman should be constructed using 2 or more logs bound together.

Slash Containment Benches

- Slash containment benches around harvesting sites will be put in during the construction phase, or subsequently during the time that hauler deadmen are being installed.
- These benches shall be placed at the direction of JNL, and must be made large enough to contain all the slash expected to be generated off the landing.
- Containment benches should slope inward to assist with the capture and retention of woody material.

Mowing of roadside verges

- Mowing is carried out to
    - maximise visibility on roadways and especially on corners
    - protect road surfaces and watertables from vegetation incursion
    - minimise the potential for fire by removing potential fuels on roadsides
    - minimise the amount of chemical required to control grasses and weeds on roadsides
- All vegetation is to be cut from a minimum of one metre outside the watertable on one side of the road, to one metre outside the watertable on the other side of the road.
- Where passing bays exist, or could be created, vegetation is to be mown to accommodate
- Where there is no clear watertable, mowing must extend back far enough to remove vegetation that may impact on visibility or road surface
- Wherever possible, vegetation overhanging the roadway is to be mown to improvise visibility and the passage of vehicles.
- Mowing must include a minimum of 1 metre around all forest signage (road signs, Waterpoints, information signs) and to allow maximum line of sight distance.
- Where fire dams are encountered, mowing shall cover as much area across the face of the dam as is possible.
- Where fallen trees or other obstructions prevent mowing of any section, JNL is to be advised as soon as possible.

- Mowing should be carried out to achieve a mowed height of 50cm wherever possible

Clearing of windfall trees

- All trees that have fallen onto or across roads are to be cleared as soon as possible after the event.
- All material is to be cut back to at least the outside row of stumps, or 1.5 metres beyond the outside edge of the watertable on both sides of the road.

Road signage

- Any JNL signage that may be affected by the operation must be taken down prior to the operation commencing, and re-instated immediately on completion. Signs or posts broken or damaged will be replaced at contractor's expense.
- Operations (including tree felling) within 2 tree lengths of any JNL road must have signage compliant with the Approved Code of Practice for Safety and Health in Forest Operations
- Operations (including tree felling) within 2 tree lengths of any public road must have signage compliant with any Traffic Management Plan issued by the relevant road controlling authority.

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SECTION 7

JNL Best Practices

and

Safety Rules

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WAIRARAPA FORESTS
CRITICAL RULES

These rules are to be read in conjunction with other regulatory documents such as Approved Codes of Practice, Industry Best Practices etc.

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General Safety Rules

1. Never knowingly expose yourself or others to anything on-site that may cause injury or ill-health.
2. If you don't know, you should ask! Follow instructions and don't take any necessary risk.
3. Report all conditions and practices which you think may cause harm or damage to people, plant, processes, or to the environment.
4. Keep your work area clean and tidy. Put everything back in its proper place.
5. Use the right tools for the task. Do it once, do it right!
6. If you are injured, get first aid and report the event as soon as possible, regardless of how minor. Also report any plant, process or environmental damage, again regardless of how minor.
7. Only use equipment you are authorised and trained to use. With chemicals, only use them when you know what they are, and how they are to be used.
8. If protective equipment is required to be used, use it! Keep all protective equipment in good condition.
9. Don't horseplay! Avoid distracting others!
10. Use the correct procedures for the task being undertaken.
11. Obey all the rules, signs and instructions which will enable you to carry out your task with minimal risk of injury.
12. Be prepared to undertake any training as and when it is provided.
13. Know where the First Aid Kits and Fire Fighting equipment are, and how to use them

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Driving- general

1. Land Transport Authority Road Code and rules and regulations will apply at all times on Forestry Roads. Drivers must also comply with the rules of any Approved Codes of Practice.

2. All vehicles must have current Warrant / Certificate of Fitness and Registration, and must carry a minimum of Third Party Insurance. Road User Licences must always be kept current.

3. All plant and vehicles must comply with manufacturer's specifications, and any Approved Codes of Practice, and display any relevant certificate, label or sticker

4. Drivers must hold a licence appropriate to the type of vehicle they are driving, along with any appropriate endorsements.

5. Passengers are not permitted on trailers, truck decks, tractors etc.

6. Chemicals, fuel and loose tools are not to be carried in the passenger compartment of any vehicle.

7. All trailers must have a safety chain fitted and secured to the towing vehicle.

8. Always drive at a speed that matches the conditions (road and weather). However, JNL has a maximum speed limit of 50 kph.

9. Before entering or beginning work in the forest you must:
    - Have advised JNL office or Security of your intention to enter
    - Where a radio is fitted, you must use your radio to advise your intentions by making a general "all stations" radio call.

10. Vehicles parked in the forest must be parked as far to the side of the road as possible to allow other traffic to pass, and facing the exit way.

11. Whenever machinery is being transported, a pilot driver must precede the transporter.

12. You must carry on the vehicle at all times:
    - A dry powder extinguisher with a 3A or equivalent rating (not less than 1.4 kg content weight). Extinguishers are to display date of last service, and must be serviced at least annually
    - A First Aid Kit sufficient for the number of people normally travelling in it.
    - In addition, vehicles are to carry one shovel. During Fire Season, this is to be increased to one shovel per man normally carried in the vehicle.
    - During the Fire Season, a pump unit (e.g. Rega Knapsack Pump, Solo Sprayer unit or similar) may also be required (contact with JNL will confirm this at time of entry). A minimum of 20 lts of water may also be required to be carried in vehicles.
    - All vehicles and plant must have efficient spark arrestors and/or exhaust systems that prevent spark emission.

13. Obey all road signs. You may not proceed past any Road Closed sign unless you have made contact with the person in charge of the work site and obtained their permission to enter.

Driving- ATV, SPV, and Motorcycles

Definition: ATV is defined in the Approved Code of Practice for Safety and Health in Forestry Operations as: *"a special purpose vehicle that is designed for off-road use. The reference to ATV in this document includes quad bikes, three-wheelers and other purpose built small off-road utility vehicles."*

1. Protective Clothing. The operator of any ATV shall wear:
   - An approved safety helmet equal to or of a higher standard than NZS 8600:2002
   - Work-style boots that are over the ankle, tightly laced, and have soles with low heels and made of slip-resistant material. Barefeet or sandals/jandals are NOT permitted.
   - Eye protection (goggles / full face shield etc.) should be worn where there is a risk of foreign objects (e.g. dust) getting in the eye.
   - Gloves and full length sleeves and trousers should be considered in bush / scrub environments

2. Passengers are not allowed unless they are approved by the manufacturer.

3. All ATVs must carry a fire extinguisher holding up to date certification, and a portable First Aid kit.

4. Drive at the best speed for the conditions (road and weather). However, the maximum speed on Forestry roads is 30km/hr.

5. ATVs must have lights on at all times when being driven in the forest.

6. Chemicals, fuel and loose tools shall not be carried on the ATV unless securely tied down.

7. Rider Competence. Operators of ATVs on JNL forest lands are required to be trained in the safe use of the machine they are using. Evidence of training may be NZQA Unit Standards, or having been deemed competent.

   Operators permitted to use ATVs are:
   - Employees of JNL,
   - Contractors of JNL,
   - People who use the forest for commercial gain e.g. Bee-keepers, Possum Trappers / monitors etc.

   Recreational riding of ATVs in JNL forests is not permitted.

8. Ramps used for loading an ATV onto a utility or trailer shall have a fail-proof attachment device and be rated for the entire weight of the ATV and rider. (ACoP rule 6.7.3)

9. ATV's shall not be used in the forest until "no-go" zones have been established. In general terms, ATV's may only be used on formed tracks within the forest. However, weather conditions (particularly rain and/or frost) may have some impact on some of these tracks and they may become unsafe for use. Operators MUST check with a JNL supervisor to determine "no-go areas" before any use takes place.
   In determining "no-go areas" consideration must be given to:
   - Slope and terrain
   - undergrowth conditions (forward visibility may be limited)
   - weather conditions
   - operator's experience level

Working Alone

1. People working alone in the forest shall ensure that JNL Security is advised of their location by making contact as soon as they arrive on site at the start of the day. If the location changes during the day, you must advise Security of that change.
2. Contractors leaving the forest at the end of the day must advise JNL Security of their departure
3. JNL staff must ensure their movements are recorded on the Staff Movement Board in the main office
4. All workers working alone in the forest shall ensure that they carry an effective means of communications.

   Where this is not possible (because of poor radio or cellphone reception, or because you will be using a chainsaw etc.), JNL Security must be advised of your location, and the time that you expect you will be back in communication range.
5. Immediately on coming back into communication range, you must contact and advise JNL Security
6. People working alone shall ensure they are wearing or carrying the following:
   - Hi vis clothing
   - Helmet (where required)
   - Safety footwear
   - Personal First Aid Kit
   - Radio
   - Handheld GPS Unit (if available)
   - EPIRB (if available)
7. JNL staff leaving the forest at the end of the day and not intending returning to the office, must call and advise the office when they are clear of the forest
8. Security MUST follow up on any crew or person who has not called out within one hour of the normal call out time.
   The follow up call must be logged on the Security Call In/Out sheet

After Hours Work

1. After hours is deemed as before 7.30am and after 5.00pm weekdays, and at any times on weekends or public holidays.
2. Weekend work or work on Public Holidays (including maintenance work on plant and machinery) must be advised to and cleared by JNL prior to work being undertaken. Advance knowledge of intended work will allow JNL to cancel or postpone other activities (e.g. hunting permits) that may compromise the safety of people working.
3. JNL Security must be advised of location and number of people present as soon as is practicable after arriving at the site. This includes loader operators who arrive on site to load out "earlies".
4. Contractors leaving the forest at the end of the day must advise JNL Security of their departure.
5. Forest Gates
    - If the gates need to be kept open because trucks are carting logs or metal through them, the gates shall be left open and then locked securely after the last load
    - If gates are not required to be kept open for operational reasons, then they shall be shut and locked during the day, and securely shut and locked on departure.

Disciplinary Action

JNL Employees

All Juken New Zealand direct employees are subject to the provisions of the JNL Corporate Disciplinary Policy and Procedures as detailed in the Corporate Human Resources Manual

Contractors

1. All Juken New Zealand Ltd staff have the authority to action an initial suspension where there is a breach of any rule (including but not limited to JNL issued rules, ACoP, Resource Consent, Best Practice Guideline etc.) which may have the ability to cause Serious Harm, constitute a Serious Hazard, or cause a Significant Environmental Effect; or where it is seen as a continuation of a previously noted breach.

2. Breaches of Safety Rules may also result in charges being laid under the relevant Acts or Regulations by MBIE

3. Periods of Suspension
   - For the first infringement of the safety rules, a written warning will be issued. This written warning shall detail the date, time, infringement, offender's name and signature, and the actioning officer's name and signature. In addition, the warning may carry an initial suspension of up to three working days.
   - For a second infringement, or a repeat of the first, a final written warning to the individual will be issued as in above. The period of suspension may be increased up to one week (7 working days). The crew as a whole may be stood down also if it can be shown that they were aware of the breach and did nothing to curtail it.
   - For a third infringement, the offender may be suspended permanently.

4. Where continued infringements occur, the contract may be terminated by the Forest Manager.

5. Nothing in Clause 4 shall preclude immediate and permanent suspension if, in the opinion of the Forest Manager, the offence was serious enough that it could cause, or could have reasonably caused death, serious harm, or fire. Theft of JNL property or non-compliance with JNL's Drug and Alcohol Free Workplace Policy and Procedures will also result in immediate and permanent suspension

6. Where the employee of Employee and Juken New Zealand Ltd differ on a point of safety, then the MBIE Inspector shall be called to advise. His/ her decision shall be final and binding on both.

7. Note that Juken New Zealand Ltd staff do not have the power to dismiss a Contractor's employees. They do, however, have the power to suspend entry to the forest.

Archaeological & Historic Sites

What are they? Places or areas that had human activity before 1900 and has evidence relating to the history of NZ. It includes areas or places that are historic, wahi tapu, or of interest to Maori

Types of sites

1. Terraces or ditches – indicating pa site(s). Commonly on hill-tops or ridges
2. Pits – indicating old garden sites

3. Middens – dumps of shell, bones, tool chips and artifacts, charcoal and oven-stones
4. Art – rock paintings, drawings, carvings and engravings
5. Urupa - burial sites, often not readily identifiable unless marked by mounds
6. Wahi tapu – sacred place to Maori
7. Old european building sites and structures

Areas of land where early Maori occupation is known, but for which there is little information

How do we know about them? The Historic Places Trust, Department of Conservation and Regional Councils keep records of known sites or areas of early occuption (Council maps)

The Historic Places Trust is charged under the Historic Places Act 1993 to identify, protect, preserve, and conserve the historical and cultural heritage of NZ. Historic places are protected by Heritage Orders and Heritage Covenants

What to do if a site is uncovered or suspected?

Stop work. Don't disturb the site further. Contact JNL

Complete an Environmental Incident Report

Legal consequences

The Historic Place Act 1993 makes it unlawful for any person to destroy, damage or modify the whole or any part of an archaeological site, *whether or not* the land on which the site is located is chosen, or a resource consent has been granted, without the authority of the Historic Places Trust.

Offences can range from $2,500 to $100,000

Summary of offences as listed in the Historic Places Act 1993

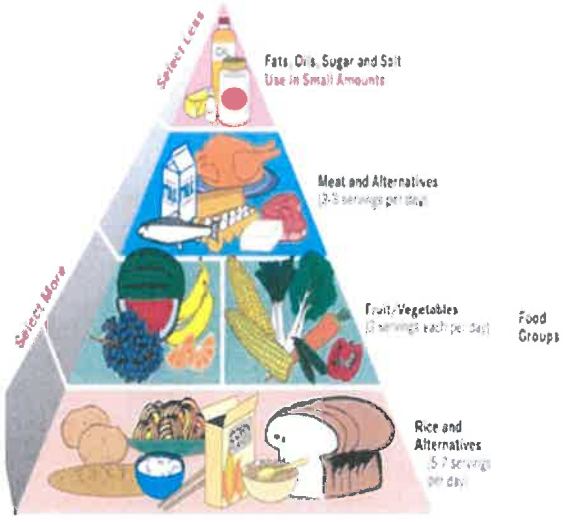
1. Intentional destruction, damage or modification of historic place, historic area, property or thing vested in or under the control of the HPT.
2. Intentional destruction, damage, or modification of land subject to heritage covenant
3. Archaeological sites
    a. Fines for destruction </= $100,000
    b. Fines for damage or modification </= $40,000
4. Breaches of conditions of authority will be subject to fines </= $40,000
5. Refusing access to an Authority or person authorised to carry out an investigation </= $2,500
6. Carrying out archaeological investigations in breach of conditions or without written permission </= $40,000
7. Destruction, damage or modification while historic place or wahi tapu has interim registration
    a. Demolition or destruction </= $100,000
    b. Alteration, extension, damage, or modification </= $40,000
8. Other offences </= $2,500

    Where vested in or under control of the HPT
    a. Entering land or historic place
    b. Taking animal or vehicle on land
    c. Lights fires on any land
    d. Lights or causes or permits to be lit any fire on adjacent land that may spread to a protected site
    e. Alters, obliterates, defaces, pulls up, removes, or destroys and boundary mark, plaque, sign, or poster on any land
    f. As for e. and where supplied and erected by the HPT and without consent of the land/property owner
    g. Takes or removes, or causes to take or remove and property or thing from a site
    h. Receives any property or thing removed from any site
    i. Fails to comply with an order under s105 of the Act
    j. Fails to carry out pest and weed control to maintain land in a clean and safe condition, or to take necessary protective measures as required by s105(2)(c)

NUTRITION

Are the foods you eat giving you the energy you need?

Food is broken down into different types, we need a mixture of these three types to keep us healthy and work hard. The body uses the fuel in this order: sugars, carbohydrates, proteins, fats



CARBOHYDRATES RELEASE ENERGY INTO BLOODSTREAM fresh fruit, vegies, bread (whole grain), rice, pasta and noodles, cereals

PROTEIN FOR REPAIRING AND BUILDING MUSCLE lean meat, fish, chicken, eggs, milk, cheese, nuts and seeds

Eating regularly will keep your energy levels up

RECOVERY SNACKS: time to replace the energy you have used working, eat foods like: **filled rolls, sandwiches, fruit, fruit juice, yoghurt, fruit buns/scones, and raisins. Do not eat too much sugar or salty food, this affects your hydrations levels.**

MAIN RECOVERY MEAL: will help your body to refuel itself for the next day, dinner should contain a mixture of carbohydrate, protein and little fat **WHAT TO EAT: lean red meat, chicken, fish, potatoes, rice or pasta, vegies, fruit**

HYDRATION

Hydration means keeping a good level of fluids in the body

60% OF A HUMAN IS MADE UP FROM WATER: THE AVERAGE MAN CONTAINS 42 LITRES OF WATER AND THE AVERAGE WOMAN 35 LITRES OF WATER IN THEIR BODY

GOOD FLUIDS FOR HYDRATION:

WATER, WATER MIXED WITH ORANGE JUICE, SPORTS DRINKS

Bad Fluids for Hydration:

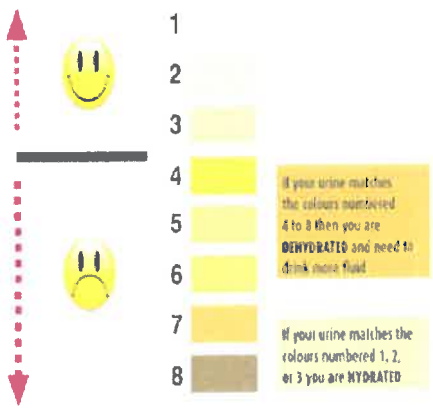
Tea, Coffee, Soft drinks, Energy drinks, Alcohol, Milk

Dehydration is when your body has lost a lot of fluid and it hasn't been replaced. Some signs of dehydration: Dark strong smelling urine, Dry mouth, not going to the toilet very often, Headache or feeling dizzy, Cramps – from loss of salt due to sweating

Effects of dehydration: Impaired performance, Capacity for muscular work declines, Heat exhaustion, Hallucinations, Circulatory collapse and heat stroke

REMEDY FOR DEHYDRATION: TAKE A BREAK FROM WORK, DRINK WATER

You should drink ½ litres of fluid every hour and in summer up to 1 litre per hour



DRINK ENOUGH TO KEEP YOUR URINE PALE OR CLEAR

MAKE SURE THAT YOUR PEE IS THE SAME COLOURS AS NUMBER 1, 2 OR 3.

COLOUR 4 AND 5 SUGGEST DEHYDRATION, 6 AND 7 SEVERE DEHYDRATION

FATIGUE is extreme tiredness, can be caused by stress, poor quality sleep, poor nutrition or hydration, illness, shift work, the use of blunt tools or tools that are too heavy for you.

STRESS is a normal physical response to threatening events your heart pound faster muscles tighten, blood pressure rises, breath quickens, and your senses become sharper, these changes increase your strength and stamina, speed your reaction time preparing you to either fight or flee from the danger at hand.

Source: 4.bp.blogspot.com

FATIGUE: enough sleep give the body time to repair itself, you need the amount of sleep that gives you full alertness (generally 8 h/per night). Your body will recover from fatigue with quality sleep

THINKS THAT MAKE SLEEP HARD: loud noise, too much light, caffeine, alcohol, room too hot, worries (health, relationship, money, and whanau), stress, heavy and fatty foods at dinner time

EFFECTS OF BAD SLEEP AT WORK: tired, depressed, irritable, uninterested in your surroundings, less concentration, short attention span, less alertness, slow reaction time, poor memory, mistakes, accidents

MANAGING STESS: REMEMBER THE 4 A'S

AVOID: by learning how to say no, distinguishing between "shoulds" and "musts" on your to-do list, and steering clear of people or situations that stress you out, you can eliminate many daily stressors

ALTER: If you can't avoid a stressful situation, try to alter it. Be assertive and deal with problems, compromise and try meeting others halfway on an issue

ADAPT: When you can't change the stressor, try changing yourself. Focus on the positive things in your life. If a task at work has you stressed, focus on the aspects of your job you do enjoy.

ACEPT: the things you can't change, Learn to accept the inevitable rather than rail against a situation and making it even more stressful, take the opportunity to learn or personal growth. Learn to accept that no one, including you, is ever perfect.

CAA
CIVIL AVIATION AUTHORITY OF NEW ZEALAND

Safety Around Helicopters

APPROACHING OR LEAVING A HELICOPTER

Do not approach without receiving a visual signal from the pilot. Do not leave without a visual or spoken instruction to do so. Stay where the pilot can see you at all times.

On sloping ground always approach or leave on the downslope side for maximum rotor clearance.

If blinded by swirling dust or grit, STOP – crouch lower, or sit down and wait for assistance.

If disembarking while the helicopter is hovering, get out slowly and smoothly when cleared to by the pilot.

Do not approach or leave a helicopter when the engine and rotors are running down or starting up.

Crouch while walking for extra rotor clearance. Always remove hats. Never reach up or chase after anything that blows away.

Carry long objects horizontally below waist level – never upright or on the shoulder.

TAKEOFF, LANDING, AND LOADING OPERATIONS

Clear helipad of loose articles. Secure your gear from the effects of rotor wash.

When transporting personnel, loading staff should ensure that:

- Passengers are briefed on approaching and leaving the helicopter
- They are grouped together and positioned to one side of the landing zone
- They face away from helicopter during takeoff and landing
- Each person looks after their own gear
- They are ready to board in turn as soon as the pilot gives the signal, and they are escorted to the helicopter

When directing the pilot for landing, stand with back to wind and arms raised.

When directing the pilot by radio, remember they may be too busy to give a reply.

After hooking up a cargo sling, move forward and to the side to signal the pilot. Ensure the sling is not across the skid. Never ride on the sling.

Fasten and adjust your seat belt on entering the helicopter and leave it fastened until the pilot signals you to get out.

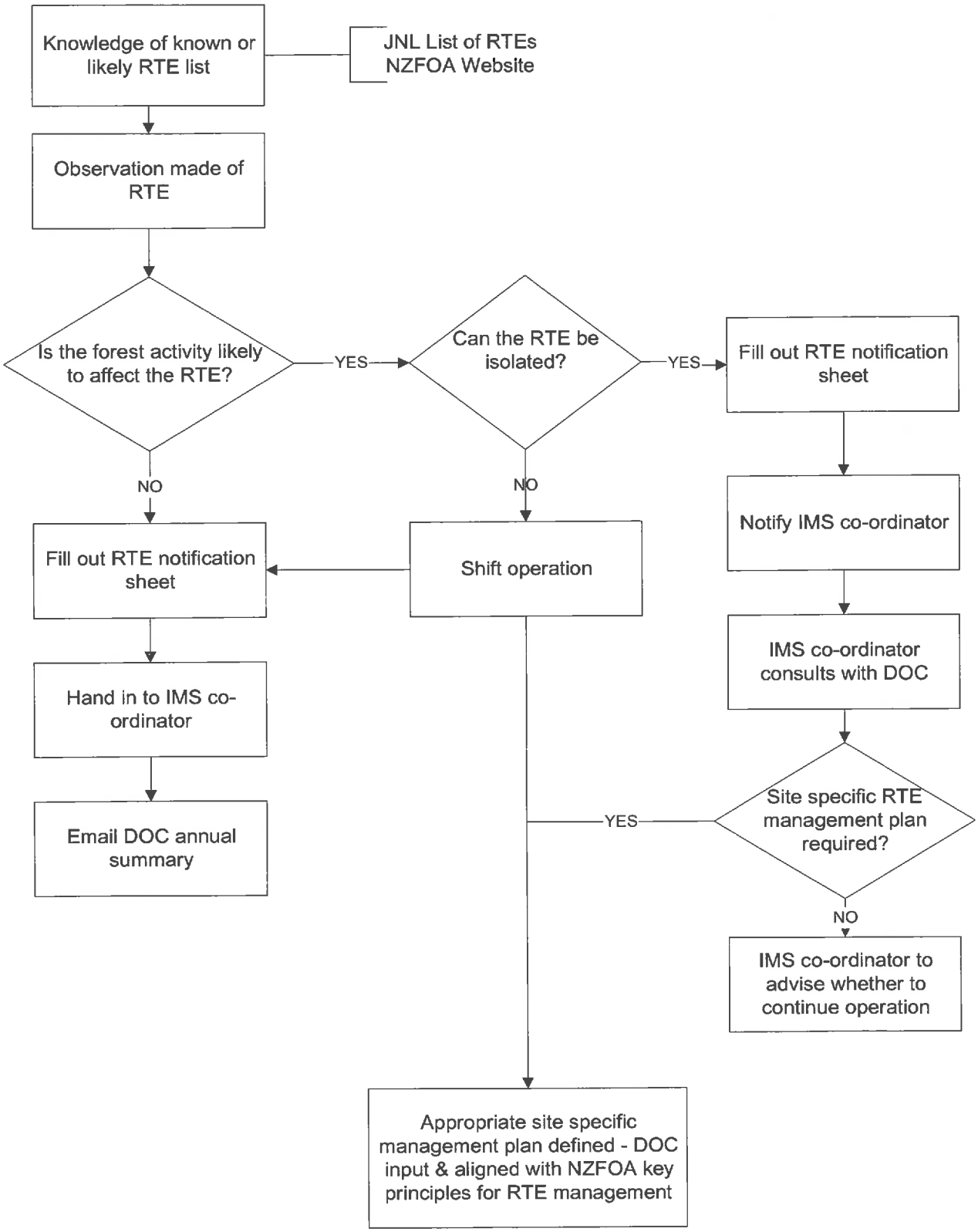
Revised April 2007

Section Eight

Rare, Threatened & Endangered Species

Refer also to the JNL booklet Rare, Threatened and Endangered Species attached

Rare Threatened and Endangered Species (RTE) Management Plan



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RARE, THREATENED AND ENDANGERED SPECIES NOTIFICATION SHEET

Complete this form if you have encountered what you suspect to be a Rare Threatened or Endangered Species of either Flora or Fauna. Hand the completed form to the IMS Coordinator who may forward a copy to the nearest Dept. of Conservation Office.

SPECIES NAME (if known)
OBSERVER NAME Contact Details:
WHAT WAS OBSERVED
SIGHTING LOCATION: DATE / TIME / FOREST / CMPT / ROAD etc CURRENT LANDUSE (Farm, Plantation Forest, Indig Forest etc) Description of site etc
OTHER:

Key principles for management of threatened species

Key principles for management of threatened species within plantation forests

The following is a summary of key conservation management actions that can be undertaken to protect threatened plants and animals that occur within and adjacent to plantation forests. Further species-specific recommended management actions are given within each species text, as are sources of information and recommended reading.

Habitat protection

Protection of existing habitats is the easiest and most cost-effective option to protect indigenous biodiversity. Indigenous forest remnants within and adjacent to plantations should be protected, including patches, corridors, riparian margins, and wetland buffers, and any areas supporting threatened plant species. Many threatened species of plants and fauna will be largely restricted to these areas of indigenous vegetation, while others will benefit from the availability of a greater diversity of food sources and habitat types provided by maintaining indigenous remnants. Indigenous vegetation can also provide refuges when forest is being felled. Fencing may be appropriate in some situations where grazing should be avoided (such as wetlands and their margins). Other habitat types such as rocky areas (e.g. outcrops, cliffs) should not be disturbed as they may provide habitat for lizards.

Stream management

In addition to the protection of riparian margins, a number of further actions can be undertaken to protect streams and threatened fish and invertebrate species. Fish passage should be provided through artificial barriers within streams such as building up the downstream side of overhanging culverts or providing other routes for climbing species. Water abstraction should be managed, particularly from areas of important habitat. The fishing of threatened species such as longfin eel should be regulated or prevented altogether. Lastly, exotic fish and aquatic weed species should be prevented from establishing in all waterways (including wetlands).

Forest harvest management

Plantation forest should be harvested in a manner that causes the least damage to indigenous remnants, particularly riparian vegetation and wetlands, and any areas that support threatened plant populations. Discharges of sediment-laden run-off from harvested areas into wetlands or other waterways should be avoided. Many species that occur in plantations are able to escape during felling operations, as long as escape routes to other suitable habitat are maintained; staging harvesting to keep escape routes open as long as possible is important for species such as kiwi and weka. Falcon nests will survive harvest if a buffer of 100-200m is maintained around a nesting site.

Post-harvest management

Avoid grazing, burning or spraying in order to encourage recovery of vegetative cover and higher ground moisture levels. The use of herbicides and pesticides should be minimised near waterways, especially if an area may, or is known to, support native frog populations (specialist advice should be sought if chemical use is unavoidable in areas with frogs). Kiwi use habitat such as slash piles and these microhabitats should be left if possible (or removed/burnt at night when birds are active).

Pest animal control

Introduced mammals such as cats, mustelids (stoats, ferrets, and weasels), hedgehogs, and rats are a key threat to the survival of the majority of threatened fauna on the New Zealand mainland. Mammalian predation affects an array of species including native and endemic invertebrates, reptiles, bats and birds. It is not yet confirmed whether introduced mammals

Further information on this guide can be obtained from:

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nzfoa@nzfoa.org.nz

are a threat to endemic frog species. Different threatened species benefit from targeted predator control regimes, tailored to their requirements. For example, North Island kokako require highly intensive possum and rat control, kereru will benefit from slightly less intensive possum and rat control, and North Island brown kiwi primarily require intensive mustelid and cat control. A predator control regime can be purpose-designed to protect a number of threatened fauna species present within an area. Exclusion of dogs should be considered in areas with kiwi or weak, or requirements for kiwi-aversion training for dogs. In coastal areas, black-backed gull predation may be a problem for shore-nesting birds such as New Zealand dotterel.

Many threatened plant species are severely impacted by browsing of pest mammals such as goats, deer and possums, and also wandering stock. Control of pest species and removal or fencing of stock can improve survival of individuals and increase regeneration potential of a number of threatened plant species, as well as improve general vegetation condition and long-term sustainability.

Pest weed control

A wide variety of invasive weeds have the ability to compete with indigenous plants, including threatened species, for light, space, and nutrients. Control of these can help ensure the persistence of these plant species in remnants of indigenous vegetation. Weed species in wetlands, such as willows, can completely change the appearance and function, and viability, of these threatened ecosystems. However, weed control in wetlands can be more complex than in other habitats, and may require the help of a specialist in wetland weed control, particularly in regard to the use of herbicides in these environments. Weeds can also transform sand dunes, and their control will ensure natural dune formation processes are able to continue, benefiting indigenous plants and animals.

Survey and monitoring

Surveys for threatened plants and fauna may need to be undertaken by specialists, particularly those for threatened plant species, lizards, frogs, and invertebrates. Liaison with staff from the Department of Conservation (DOC) will help to clarify the best methods for surveying. Records of threatened species should be passed on to DOC. Certain methods of monitoring are standard for some species such as kiwi and weka. The implementation of a monitoring regime will evaluate whether management actions (such as predator control, weed control for threatened plants) are improving the status of the species in question. Raising the awareness and knowledge of forestry staff will greatly benefit threatened species management.

Community involvement

Community groups can be involved in the conservation management of threatened species in and adjacent to plantations in many ways. These include management of coastal nesting areas, construction and placement of nest boxes, predator control initiatives, weed control initiatives, and monitoring.

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Fauna
Regions
Photo Acknowledgements
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Classification systems for threatened species
Key principles for management of threatened species
Regional Map
Funders
Glossary
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Wellington Region

Total Species in Wellington: 67
Fauna:
Flora:

Print Page

Keyword Search
GO

Flora

Trees
- Mida salicifolia (maire)
- Olearia hectorii (deciduous tree daisy)
- Raukaua edgerleyi (raukawa)

Shrubs
- Brachyglottis kirkii var. kirkii (Kirk's daisy)
- Olearia cheesemanii (streamside daisy)
- Olearia gardneri (deciduous tree daisy)
- Pimelea tomentosa
- Pittosporum obcordatum (heart-leaved kohuhu)

Parasitic plants
- Alepis flavida (historic records only)
- Dactylanthus taylorii (woodrose) (historic records only)
- Peraxilla colensoi (scarlet mistletoe/korukoru) (historic records only)
- Tupeia antarctica (white mistletoe)

Aquatic herbs
- Myriophyllym robustum (stout water milfoil)

Dicot herbs
- Daucus glochidiatus (local throughout)
- Epilobium chionanthum
- Euphorbia glauca (local throughout)
- Jovellana sinclairii
- Mazus novaezeelandiae subsp. impolitus forma impolitus
- Mazus novaezeelandiae subsp. novaezeelandiae (dwarf musk)
- Myosotis pygmaea var. minutiflora
- Ranunculus macropus (swamp buttercup)
- Sebaea ovata (historic records only)
- Senecio scaberulus (fireweed)

Orchids
- Drymoanthus flavus
- Plumatochilus tasmanicum
- Pterostylis micromega (swamp greenhood)
- Pterostylis puberula (historic records only)

Fauna

Bats
- Northern long-tailed bat
- Northern Short-tailed bat

Coastal birds
- Banded dotterel
- Blue penguin
- Caspian tern
- Reef heron
- White-fronted terns

Fish
GALAXIIDS, EELS AND LAMPREY
- Dwarf galaxias
- Giant kokopu
- Lamprey
- Long-finned eel
- Short-jawed galaxia

MUDFISH
- Brown mudfish

Forest birds
- Bush falcon
- Kaka
- Kakariki
- Long-tailed cuckoo
- New Zealand pigeon

Invertebrates
SNAILS
- Powelliphanta snails

Lizards
- Speckled skink
- Spotted skink
- Wellington green gecko

Wetland birds
- New Zealand dabchick

Sedges, rushes and grasses
- Austrofestuca littoralis
- Desmoschoenus spiralis (pingao) (historic records only)
- Juncus holoschoenus var. holoschoenus
- Libertia peregrinans (native iris)

Ferns
TERRESTRIAL FERNS
- Doodia squarrosa (rasp fern)
- Ophioglossum petiolatum (historic records only)

Further information on this guide can be obtained from:

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Forest Field Guide to Threatened Species within the JNL Estate nd its Immediate Confines

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Foreword

This field guide is designed to help Juken New Zealand Ltd's (JNL) staff and contractors to identify the presence of Rare, Threatened or Endangered species within the JNL estate and its immediate confines. They have been asked to record sightings and observations and forward them to JNL, who will in turn, if necessary, advise Department of Conservation. This will allow any follow up research to be carried out, and for management plans for any confirmed populations to be effected.

This guide has been compiled from resources available through the NZ Forest Owner's Association, with editing of species considered to be more likely to found in JNL forests, by Department of Conservation, Wairarapa Office.

The species in this booklet have been assigned a Threat Level. This threat Level has been taken from the NZ Forest Owner's Association website. Some species, while considered to be nationally threatened or on gradual decline, may, in fact be seen to be flourishing in the Wairarapa. Kereru (NZ pigeon) are a good example of this, as are long-tailed cuckoo. Long-tailed cuckoo are migratory and only return to breed. JNL will continue to monitor numbers to check for any significant changes to numbers and distribution

NEW ZEALAND'S THREATENED SPECIES

New Zealand's plantation forests provide benefits for many environmental services and processes such as clean streams, erosion protection, carbon sequestration, and flood abatement as well as social benefits such as recreation. The contribution to New Zealand's indigenous biodiversity is one benefit that is often overlooked or dismissed. Almost 60% of New Zealand is under pasture, crop, horticulture, and plantation forest management and many indigenous species (some of which are threatened) are also present within these environments. Within the plantation forest estate alone there could be as much as 200,000 hectares of indigenous forest remnants, riparian strips, watercourses and wetland. Many of New Zealand's threatened species find favourable habitats in plantation forests and may utilise plantation stands on a full-time basis. This includes kiwi, falcon (karearea), Hochstetter's frogs, and long-tailed bats. Other threatened species often utilise plantation forests to supplement food supplies but remain reliant on adjacent natural forest (e.g. kaka, kea, kakariki, and kereru). In either case, plantation forests provide key habitats for these species and, with careful management, contribute to their continued survival.

Private land owners are becoming more aware of the importance of caring for threatened habitats and species on their lands. Much of this comes from a growing awareness in the wider community, possibly resulting from implementation of the Resource Management Act, the Conservation Act, and Wildlife Act. For those involved in the forest industry, the NZ Forest Accord and, more recently, third party forest certification systems have placed extra impetus on managing for threatened species along with their habitats and other biodiversity values. However, the industry has been hampered by a lack of practical and comprehensive guidelines on how to manage threatened species on private land.

The need for a practical guideline for managing indigenous biodiversity and threatened species on private land has lead to the development of this guide utilising material sourced from the NZ Forest Owners Association. With funding from the New Zealand Government's Biodiversity Advice Fund and technical expertise provided by Wildland Consultants the guide aims to provide a practical means for foresters to manage threatened species that may reside within their plantation estates.

A key driver for the guide's development has been the threatened species provisions contained in the FSC (Forest Stewardship Council) standards and criteria. The guide will also be applicable to other forest owners, private landowners, regulators, land care groups, and Environmental NGO's.

This guide has been modified from the full list to show only those species considered by the Department of Conservation (Wairarapa Office) to be likely to be found in the JNL Estate in the Wairarapa. It is possible that other species may exist, but this guide is the listing of most likely species.

CONTENTS
(Species list as recommended by Department of Conservation – Masterton Office)

Flora

Trees

- Mida salicifolia (Maire)
- Raukaua edgerleyi (Raukaua)

Shrubs

- Brachyglottis kirkii var. kirkii (Kirk's Daisy)
- Pimelea tomentosa
- Pittosporum obcordatum (heartleaved kohuhu)

Parasitic Plants

- Dactylanthus taylorii (Woodrose) (historic records only)
- Peraxilla colensoi (Scarlet Mistletoe/Korukoru (historic records only)

Dicot Herbs

- Daucus glochidiatus (local throughout)
- Mazus novaezeelandiae subsp. novaezeelandiae (Dwarf Musk)

Fauna

Bats

- Northern long-tailed bat
- Northern short-tailed bat

Fish

- Dwarf Galaxias
- Giant Kokopu
- Lamprey
- Long-finned eel
- Short-jawed galaxia
- Brown Mudfish

Forest Birds

- Bush Falcon
- Long-tailed Cuckoo
- New Zealand Pigeon

Lizards

- Wellington Green Gecko

Mida salicifolia (maire) Threat Level – Serious decline
Also known as NZ sandalwood, willow-leaved maire, or maire taike

Key Features

- Slender tree to 6 m tall with rough bark and glossy, straplike leaves, 7-12 cm long.
- The bright red fruits are about 1 cm diameter and borne in clusters.

Distribution and Habitat

- North Island, lowland forest.
- Known to be in a number of eastern Wairarapa and Tararua sites
- Likely to be restricted to native forest remnants

Further Information and Support

- New Zealand Plant Conservation Network (NZPCN). http://www.nzpcn.org.nz

References

- Poole & Adams (1994). Trees and shrubs of New Zealand. Maanaki Whenua Press, Lincoln.
- Salmon (1986). A field guide to the native trees of New Zealand. Reed Methuen, Auckland.

Raukaua edgerleyi (Raukawa) Threat Level – Gradual decline

Key Features

- Small forest tree to 10 m tall.
- Juvenile leaves are three or five-fingered, with irregularly lobed leaflets (fingers). Adult leaves are solitary or three fingered and generally have wavy edges, but no teeth on the margins.
- The leaves are glossy and have long stalks and an aromatic, lemony scent when crushed.
- Flowers and fruits are in small clusters on slender stalks.
- Pseudopanax simplex is a similar tree but has toothed leaves that do not emit a lemony scent when crushed.

Distribution and Habitat

- North and South Islands.
- Lowland to upper montane forests.
- Likely habitat is streamside remnants in mature forest.
- Juveniles may grow on tree ferns

Further Information and Support

- New Zealand Plant Conservation Network (NZPCN). http://www.nzpcn.org.nz
- Possum, feral animal control - DOC, Regional Councils.

References

- Poole & Adams (1994). Trees and shrubs of New Zealand. Maanaki Whenua Press, Lincoln.

Brachyglottis kirkii var. kirkii (Kirk's daisy) Threat Level – Serious decline

Key Features

- Shrub to 1.5 m sometimes terrestrial but generally an epiphyte.
- Older stems have grey bark but young branchlets are purple.
- Leaves are up to 10 cm long and 2-4 cm wide, variable in shape and usually toothed toward the tip. They are green above, often tinged maroon, and paler below.
- Flower heads are borne in dense clusters, with flowers having white petals.
- The fruit is dry and fluffy for wind dispersal.

Distribution and Habitat

- North Island, scattered populations in lowland to montane forest.
- More likely to be found in mature bush remnants
- Will grow on the ground only where drainage is good and light is fairly high

Further Information and Support

- New Zealand Plant Conservation Network (NZPCN). http://www.nzpcn.org.nz
- Pest control - DOC, Regional Councils.

Pimelea tomentosa Threat Level – Serious decline

Key Features

- Erect shrub to 1 m tall, with slender, hairy branches that have dark brown bark and prominent leaf scars.
- Thin leaves are 1-2.5 cm long and 3-5 mm wide, with dense hairs on the underside when young.
- Flowers occur in dense heads and are white or pink and densely hairy, giving rise to fruit that are white, pink or black.
- Not long-lived

Distribution and Habitat

- North Island and northern South Island, lowland open places and shrublands.
- Likes disturbed sites, e.g. roadsides
- Competition with weeds.

Further Information and Support

- New Zealand Plant Conservation Network (NZPCN). http://www.nzpcn.org.nz

References:

- Wilson & Galloway (1993). Small-leaved shrubs of New Zealand. Manuka Press, Christchurch.
- Poole & Adams (1994). Trees and shrubs of New Zealand. Maanaki Whenua Press, Lincoln.

Pittosporum obcordatum (heart leaved kohuhu) Threat Level - Endangered

Key Features

- Erect shrub to 1 m tall, with slender, hairy branches that have dark brown bark and prominent leaf scars.
- Thin leaves are 1-2.5 cm long and 3-5 mm wide, with dense hairs on the underside when young.
- Flowers occur in dense heads and are white or pink and densely hairy, giving rise to fruit that are white, pink or black.

Distribution and Habitat

- North Island and northern South Island, lowland open places and shrublands.

Further Information and Support

- New Zealand Plant Conservation Network (NZPCN). http://www.nzpcn.org.nz

References:

- Wilson & Galloway (1993). Small-leaved shrubs of New Zealand. Manuka Press, Christchurch.
- Poole & Adams (1994). Trees and shrubs of New Zealand. Maanaki Whenua Press, Lincoln.

Dactylanthus taylorii (wood rose) Threat Level – Serious decline

Key Features

- A root parasite forming a rounded, warty growth on the roots of parasitised plants. These can reach 50 cm in diameter, and occur just below the ground surface.
- Wood rose lacks leafy shoots, but produces many fleshy flowering shoots to 20 cm long, which are clad in pinkish scale leaves. When these shoots reach the ground surface, clusters of many small flowers open, which are adapted for pollination by the short-tailed bat.
- The flowering shoots leave distinctive circular scars on the warty underground part of the plant, which differentiate wood rose from galls formed by bacterial infections.

Distribution and Habitat

- North Island, from sea level to 1200 m. Generally in secondary forest where it parasitises the roots of a wide range of small trees, and some larger trees including broadleaf and beech.
- Also occurs on the outer fringes of montane forest.
- It generally occurs in well-drained but damp sites, typically at the heads of small streams.

Further Information and Support

- New Zealand Plant Conservation Network (NZPCN). http://www.nzpcn.org.nz

References

- Dopson et al. (1999). The conservation requirements of New Zealand's nationally threatened vascular plants. Threatened Species Occasional Publication 13. Department of Conservation, Wellington.
- Poole & Adams (1994). Trees and shrubs of New Zealand. Maanaki Whenua Press, Lincoln.
- Wilson & Given (1989). Threatened plants of New Zealand. DSIR Publishing, Wellington.

Peraxilla colensoi (scarlet mistletoe / korukoru) Threat Level – Gradual decline

Key Features

- Shrubby parasitic plant up to 3 m across, with broad leathery leaves arranged oppositely and 3-8 cm long.
- The scarlet flowers are linear and arranged in groups of up to five. They often form a conspicuous ground litter after fruiting.
- The small egg-shaped fleshy fruits are yellow in colour.
- Scarlet mistletoe tends to parasitise silver beech (Nothofagus menziesii), but has also been found on Metrosideros (rata) and Pittosporum (lemonwood, kohuhu) and some exotic trees, and is most noticeable, and attractive, when in flower.

Distribution and Habitat

- North and South Islands, from Mt Te Aroha to Southland.
- Mostly at lower altitudes (up to 500 m).
- Most commonly found in beech forest

Further Information and Support

- New Zealand Plant Conservation Network (NZPCN). http://www.nzpcn.org.nz

References

- Dopson et al. (1999). The conservation requirements of New Zealand's nationally threatened vascular plants. Threatened Species Occasional Publication 13. Department of Conservation, Wellington.
- Poole & Adams (1994). Trees and shrubs of New Zealand. Maanaki Whenua Press, Lincoln.

Daucus glochidiatus (native carrot) Threat Level – Serious decline

Key Features

- Similar to the garden carrot, Daucus carota, which is naturalised in the wild, but D. glochidiatus is a smaller plant (up to 30 cm, or occasionally 60 cm tall) and its flower heads have an irregular outline.

Distribution and Habitat

- North and South Islands, lowland in open places, but uncommon.

Further Information and Support

- New Zealand Plant Conservation Network (NZPCN). http://www.nzpcn.org.nz

Mazus novaezeelandiae subsp. impolitus forma hirtus (dwarf musk)
Threat Level – Serious decline

Key Features

- A creeping, mat-forming herb with fleshy white stems and elongated green or brownish, wavy-edged, lightly toothed leaves up to 8 cm long, that are borne in terminal rosettes. Flowers are very conspicuous, up to 1.5 cm diameter with 3-lobed petals that are white or pale yellow or purplish, and may be produced in profusion. Three forms of M. novaezeelandiae are recognised, two subspecies (subsp. novaezeelandiae and subsp. impolitus) and a distinctive form of subsp impolitus (forma hirtus). Mazus novaezeelandiae subsp. novaezeelandiae differs from Mazus novaezeelandiae subsp. impolitus in having glossy leaves without brown margins, rather than dull leaves with brown margins. Mazus novaezeelandiae subsp. impolitus forma hirtus is further distinguished by having hairy leaf margins.

Distribution and Habitat

- Mazus novaezeelandiae subsp. novaezeelandiae occurs in the lower North Island and Hawke's Bay, favouring light gaps in lowland kahikatea forest, or where this type of forest was formerly present, including pasture under light grazing regimes.
- Mazus novaezeelandiae subsp. impolitus is more widespread, occurring in both North and South Islands, where it inhabits damp sand hollows and sand flats in coastal sites.
- Not likely to be in plantation forest

Further Information and Support

- New Zealand Plant Conservation Network (NZPCN). http://www.nzpcn.org.nz
- Weed management - DOC, Regional Councils

References

- Dopson, S.R.; de Lange, P.J.; Ogle, C.C.; Rance, B.D.; Courtney, S. & Molloy, J. (1999). The conservation requirements of New Zealand's nationally threatened vascular plants. Threatened Species Occasional Publication 13. Department of Conservation, Wellington.

Bats (Pekapeka) Threat Level – Nationally vulnerable

Key Features

Description

- Short-tailed bats have long ears and short thin tails
- Long-tailed bats have short ears and the tail is linked by a membrane to the forelimbs.
- Both bats are smaller than a mouse and will fit into the palm of your hand.

Interesting Facts

- Roost by day in cavities of native trees, large hollow tree stumps, caves or fractures and joints in rocky bluffs.
- Active at night, with long-tailed bats often seen flying at dusk.
- Navigate and hunt by echolocation, which can sometimes be heard (clicking) without the aid of bat-detectors.
- Typically hunt for insects on the wing, but short-tailed bats will also forage for insects, fruit and pollen at or near the forest floor, e.g. Woodrose (Dactylanthus).
- The presence of Woodrose is often a sign that short-tailed bats may be present (refer to the Woodrose section).

Association with Plantations

- Bats are often found in plantation forest.
- Occur mainly in mature indigenous forest and remnants, but forage over indigenous and exotic forests, open ground and cutover forest.
- Bats are known to roost in large exotic trees and have often been found in old crop radiata and Douglas fir. They are often discovered when these large trees are felled at harvesting.
- They often use forest roads for feeding access.

Further Information and Support

- Bat (Pekapeka) recovery plan. Threatened Species Recovery Plan Series No. 15 (1995), Department of Conservation.
- O'Donnell C. 2001. Guidelines for surveying and monitoring long-tailed bat populations using line transects. DOC Science Internal Series 12.
- Pest management – contact DOC or Regional Councils.

Native Fish Threat Level – Gradual decline

Key Features

Description

- Galaxiids are slender fish lacking scales; the dorsal fin is located very close to the tail.
- Eels are very long fish characterised by having their dorsal and anal fins merged with the tail.
- The lamprey is superficially eel-like, but it lacks jaws and has a round sucker-like mouth, seven pairs of external gill openings and no paired fins.

Interesting Facts

- Some species are widespread but in low numbers and declining, e.g. long-finned eel, short-jawed kokopu, giant kokopu and lamprey.
- Most river species migrate to estuaries or the sea to spawn with juveniles returning as part of the "whitebait" during spring or autumn.
- Lampreys spend 3-4 years at sea as juveniles before returning to rivers.
- Eel larvae take 18 months to travel from Pacific spawning grounds to rivers.
- River species require good riparian cover, streamside shade and logs and/or boulders in stream.
- Some favour slow –moving waters close to the sea, e.g. giant kokopu.
- Most feed at night and prey on invertebrates.
- Dwarf inanga occur only in dune lakes of Northland and Auckland.

Association with Plantations

- All can occur in or move through plantation forestry areas.
- Plantation streams and lakes often have relatively high populations.

Further Information and Support

- DOC – advice for management, survey, and monitoring.
- Bonnet et al. 2002. Critical habitats for the conservation of giant kokopu Galaxias argentatus (Gmelin 1879). Science for Conservation 206. DOC.
- Buxton 1991. New Zealand's wetlands: a management guide. Wellington, Department of Conservation.
- Jowett I. et al. 1999. Fish passage at culverts: a review with possible solutions for New Zealand indigenous species.
- McDowall R.M. et al. 1996. Critical habitats for the conservation of short-jawed kokopu, Galaxias postvectis Clarke. Conservation Sciences Publication No. 5. Department of Conservation.

McDowall R.M. 2000. The Reed Guide to Freshwater Fishes.

Dwarf galaxias

Giant kokopu

Lamprey

Long-finned Eel

Short-jawed galaxias

Brown Mudfish Threat Level – Gradual decline

Key Features

Description

- Small and cigar-shaped appearing like a stocky eel.
- Conspicuous dorsal and anal fins.

Interesting Facts

- Non-migratory species that are generally restricted to small isolated populations.
- Occur in wetlands, swampy streams and drains that become seasonally dry.
- Feed on invertebrates.
- Spawn during the wetter months.
- During dry periods can avoid dehydration by remaining inactive beneath debris and logs for long periods.

Association with Plantations

- All can occur in wetlands or drains adjacent to plantation forestry areas.

Further Information and Support

- DOC – advice for survey.
- Barrier R. 2003. New Zealand mudfish (Neochanna spp.) recovery plan. Department of Conservation, Wellington.
- McDowall R.M. 2000. The Reed Guide to Freshwater Fishes.

Native Birds

Bush Falcon (Karearea) Threat Level – Nationally vulnerable

Key Features

Identification

- Falcons differ from the common hawk (Australasian harrier) by being:
- About half the size and has angular wings.
- Fast fliers with rapid wing beats rather than the gliding of harriers.

Interesting Facts

- Widespread in forest and open country, except Northland.
- Usually ground-nesting.
- Breeding and chick rearing occurs from September to January.
- Nest areas are easily located by the presence of "dive-bombing" parents usually occurring within 50 m of nest.
- Uses feet to strike birds in mid air or prey on the ground.

Association with Plantations

- Common in clearcut and young re-established stands (up to age 4).
- Nests are often located in recently clearfelled sites (up to age 2).

Further Information and Support

- Falcon biology, monitoring - http://www.wingspan.co.nz or email wingspan@xtra.co.nz
- Pest management - DOC, Regional Councils.

Long-tailed cuckoos (Koekoea) Threat Level – Gradual decline

Key Features

Identification

- Larger than a blackbird.
- Has a very long tail with dark brown bands.
- Usually detected by long drawn out screech.

Interesting Facts

- Migratory, leaving NZ in January-March to spend the winter in the tropical Pacific from Micronesia to French Polynesia and returning to New Zealand in October.
- It lays its eggs in whitehead's nests in North Island and brown creeper and yellowhead nests in the South Island.

Long-tailed cuckoo

Whitehead

Association with Plantations

- Long-tailed cuckoo frequently occur in plantation forestry when there is a presence of whitehead or brown creeper

Further Information and Support

- Heather and Robertson 2000. Field Guide to the Birds of New Zealand.
- Predator control, monitoring and translocation protocols – DOC

NZ Pigeon (Kereru, kukupa) Threat Level – Gradual decline

Key Features

Description

- Large pigeon coloured green-grey and bronze above with conspicuous white belly and red eyes and bill.

Interesting Facts

- Widespread through New Zealand, mostly within indigenous forest and remnants.
- The only New Zealand bird left that disperses seeds of many large-berried tree species (e.g. tawa, taraire, karaka).
- The kereru breeding season is usually accompanied by aerial display flights, each comprising upward flapping flight and a stall, followed by a steep downward glide.

Association with Plantations

- Commonly encountered in plantation forests throughout New Zealand.
- Mostly found where indigenous remnants are present in or around the plantation.
- Will feed in plantations when understorey plants provide suitable berries.

Further Information and Support

- Gillies C. 2002. Managing rodents on the New Zealand mainland. DOC Science Internal Series No. 47.
- Handford P. 2000. Native forest monitoring: a guide for forest owners and managers.
- Kukupa Survival Guide (DOC).
- Pest control – DOC, Regional Councils.

Lizards

Wellington Green Gecko Threat Level – Gradual decline

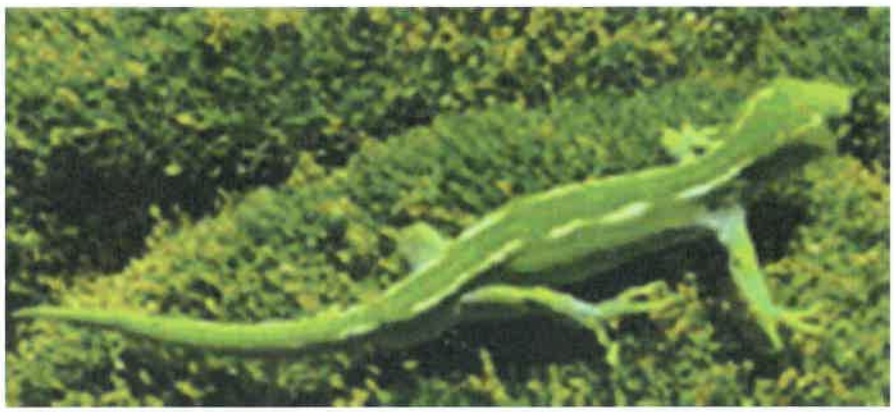
Key Features

Description

- Geckos have loose soft skin with the tiny scales indicated by minute bumps and giving a granulated appearance.
- Skinks have firm skin with tightly pressed scales that shine in the sun.
- Skinks are mostly diurnal and are rapid movers.

Interesting Facts

- New Zealand has a diverse group of geckos and skinks, but poorly known and additional species are likely to be discovered and others erected following genetic studies.
- Hoplodactylus geckos favour rocky outcrops, gullies with rock or log cover and sometimes forest.
- Southern forest gecko and are mainly nocturnal.
- Naultinus (green) geckos favour shrubland and forest habitat and are mainly diurnal.
- Oligosoma skinks are mainly diurnal and occur in diverse habitats from rocky and sandy shorelines, and forests to subalpine habitats.
- There are many other species of sparse non-threatened lizards that occur on the mainland and several other threatened species that are confined to offshore islands (Gill and Whitaker 1996, Towns et al. 2002).



Association with Plantations

- Many lizards are known to occur in rocky outcrops, gullies with rock or log cover in plantations, and in indigenous remnants elsewhere.

Further Information and Support

- DOC 2002. The Penguin guide to New Zealand wildlife: native and introduced birds, mammals, reptiles and amphibians. Auckland, Penguin.
- Gill B., Whitaker A. 1996. NZ frogs and reptiles. Auckland, Bateman.
- Towns et al. 2003. North Island Oligosoma Species Recovery Plan 2002-2012. Department of Conservation, Wellington.

GLOSSARY

Birds

Cere	wax-like membrane at base of bird's beak
Nape	bird's neck

Plants

Awns	stiff bristle-like projection (on a grass) usually at the tip of an organ
Axils	the upper angle between the leaf stalk and the stem
Bract	modified, often much-reduced leaf
Branchlet	smallest, outermost branches of a woody species
Calyx	the outer, usually green or brown flower parts which protect the developing inner flower parts in bud
Capsules	dry fruit that splits to release seed
Corm	short swollen underground plant stem that serves as an organ of propagation
Divaricating	form of plant. Spreading at a very wide angle, used especially for shrubs with stiff, wide-angled, more or less intertangled branching
Frond	a leaf, used especially for ferns
Glume	small chaffy or membranous bract
Haustorium	absorbing organism of a plant parasite
Inflorescence	plant part – a floral system consisting of more than one flower
Keel	a sharp central ridge on a leaf, like the keel of a boat
Labellum	a lip, in an orchid flower; a well differentiated petal
Node	place on plant stem marked by the attachment of one or more leaves
Ovoid	of solid body with an ovate outline
Petiole	stalk or leaf
Rhizome	an underground stem usually spreading horizontally
Sepal	outer part of flower, usually green and leaf-like
Sheath	tubular structure enclosing an organ or part
Spike	unbranched, elongated inflorescence of stalkless flowers
Stipule	one of a pair of scale like or leaf-like appendages at the base of the petiole
Utricle	thin loose cover enveloping some fruits
Whorled	three or more parts or organs at the same level arranged around an axis

Fish

Anal fin	located underneath and to the rear of fish species
Caudal fin	tail fin of fish
Dorsal fin	back fin of fish
Pectoral fin	gill fin of fish
Ventral fins	pair of fins found on the underside of fish

Lizards

Dorsal	back
Iris	membrane behind the eye
Lateral	side
Longitudinal	lengthwise
SVL	snout-vent length
Transverse	in crosswise direction

General

Diurnal	of the day, not nocturnal
Eutrophication	excessive nutrition inflows into streams, wetlands and lakes (from fertilisers and other chemicals, animal waste, septic tanks) causing algal growth, a decrease in oxygen, and other negative impacts
Hermaphrodite	having sexual organs of both male and female
Mustelid	ferrets, stoats or weasels
Nocturnal	active at night
Prostrate	lying on or along the ground
Riparian	vegetation along the edge of a wetland or stream, often heavily utilised by resident or dispersing animals

Threat Classifications

Threat Levels

1 Nationally critical
- Very small population or a very high predicted decline.

2 Nationally endangered
- Small population and moderate to high recent or predicted decline or
- Small to moderate population and high recent or predicted decline.

3 Nationally vulnerable
- Small to moderate population and moderate recent or predicted decline.

4 Serious decline
- Moderate to large population and moderate to large predicted decline, or
- Small to moderate population and small to moderate predicted decline.

5 Gradual decline
- Moderate to large population and small to moderate decline.

6 Sparse
- Taxa with very small, widely scattered populations.

7 Range restricted
- These taxa occur in a small geographic area, are restricted to a particular habitat, or require very specific substrates, and for colonial breeders, have fewer than 10 subpopulations.

RARE, THREATENED AND ENDANGERED SPECIES NOTIFICATION SHEET

Complete this form if you have encountered what you suspect to be a Rare Threatened or Endangered Species of either Flora or Fauna. Hand the completed form to the IMS Coordinator who may forward a copy to the nearest Dept. of Conservation Office.

SPECIES NAME (if known)
OBSERVER NAME Contact Details:
WHAT WAS OBSERVED
SIGHTING LOCATION: DATE / TIME/ FOREST/ CMPT/ ROAD etc CURRENT LANDUSE (Farm, Plantation Forest, Indig Forest etc) Description of site etc
OTHER:

RARE, THREATENED AND ENDANGERED SPECIES NOTIFICATION SHEET

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SIGHTING LOCATION: DATE / TIME/ FOREST/ CMPT/ ROAD etc CURRENT LANDUSE (Farm, Plantation Forest, Indig Forest etc) Description of site etc
OTHER:

Section Nine

JNL
JUKEN NEW ZEALAND LTD

JNL Company Policies

6. Smoke Free Policy

Juken New Zealand Limited upholds a smoke-free Environment policy and as such the following will apply.

From 10 December 2004 the Smoke-free Environments Act 1990 requires all internal areas of workplaces to become smoke-free. Company vehicles are classed as internal areas because: As such there will be no smoking within company premises or vehicles.

"An internal area in relation to any premises or vehicle, means an area within or on the premises that, when all its doors, windows, and other closable openings are closed, is completely or substantially enclosed by:

- A ceiling, roof, or similar overhead surface; and
- Walls, sides, screens or similar surfaces; and
- Those openings."

(Excerpt from the Smoke-free Environments Act 1990)

Failure to take all reasonably practicable steps to prevent someone from smoking in an internal area in a workplace or licensed premises may result in a maximum fine of $400 for individual employers, and $4000 for body corporates.

All JNL employees, contractors and their employees, visitors and others must abide by this policy. There is to be no smoking in company office spaces and work vehicles. All employees will comply with the smoke free workplace polices of clients and others. No smoking will be permitted in company vehicles, company offices or any other place where reasonable requests are made from any employee, client or visitor. All employees will abide by the smoke-free policies of clients or sub-contractors where these policies conform to the act, regulations or any reasonable requests.

Failure to abide by this policy will result in disciplinary action.

Masa Ueki

Managing Director

Juken New Zealand Limited

Sheldon Drummond

General Manager Forests

Juken New Zealand Limited

Date reviewed August 2014

Managing Violence, Aggression & Stress in the Workplace Policy

Responsibilities

All managers and employees, visitors, contractors, sub-contractors and their employees and others must meet their responsibilities towards prevention and management of violence, aggression and stress under this policy.

Supervisors/Crew Managers and Other Employees

All Supervisors/Crew Managers and other Employees are required to take care of themselves and others in the workplace. Crew Managers and other Employees must report all aggression related incidents and actively participate in procedures and activities aimed at preventing and managing violence and aggression.

Incidents and Post Incident Action

Incidents so notified will require the Supervisor/Crew Manager to conduct an initial investigation and where assault or serious harm have not been inflicted, issue a corrective action report to the individual or group concerned. This must be signed by the employees, individual or manager/supervisor of the entity concerned. Refusal to sign a corrective action form by an employee will result in their removal from the workplace and a stand down period until the matter is investigated further by a staff member of JNL and the appropriate Supervisor/Crew Manager who issued the corrective action.

Where assault or serious harm has been inflicted, this will be treated as serious misconduct resulting in dismissal.

All incidents reported will be investigated by the Forest Manager of Juken New Zealand Limited, the Supervisor/Crew Manager responsible for supervising the operation and the offending individual concerned. After the event, investigation will be directed at preventing the incident from recurring (hazard management review) and by minimising the impact of aggression to the victim by (e.g. providing counseling).

Masa Ueki

Managing Director

Juken New Zealand Limited

Sheldon Drummond

General Manager Forests

Juken New Zealand Limited

Date reviewed August 2014

5.3 1080 (Sodium Fluroacetate) for Pest Control Policy

Policy on the use of Sodium Fluroacetate (1080) for Animal Pest Control

JNL does not, and will not, support the dispersions of poison baits containing Sodium Fluroacetate (commonly called 1080 poison) on lands owned, leased or managed by JNL.

JNL does not support, and will not support its lands or lands it leases being used as a staging place for the loading, storage or dispersal of poison baits containing Sodium Fluroacetate.

Applications by various officials and authorities to use JNL property for the above purposes will not be supported by JNL but JNL will not actively resist legally justified instructions to provide landing sites.

JNL supports attempts to eradicate Bovine Tb infected wild animals but does not support broadcast poisoning programs using 1080 poison as it contravenes the principles of the environmental management pursued by the company through the company's Integrated Management System.

JNL actively promotes possum and other wild animal control programs by means of cyanide poisoning and trapping, as detailed in the JNL Forest Management Plan.

Masa Ueki
Managing Director
JUKEN NEW ZEALAND LIMITED

Sheldon Drummond
IMS Manager, General Manager Forests
JUKEN NEW ZEALAND LIMITED

Reviewed: August 2014

5.2 Chemical Management Policy

Chemical Management Policy

JNL Promotes the reduction of chemical use in its forests through:

- Research into the effectiveness of non-chemical alternatives. integrated pest control and reduction in chemical use and toxicity.
- Continuous review of the Chemical Register
- Feedback on current operations and field staff.

JNL will manage the use of agrichemicals in accordance with;

- Relevant legislation – Hazardous Substances and New Organisms Act and Health and Safety in Employment Act and attendant regulations.
- Regional and District Plans
- NZ Standards for Management of Agrichemicals *(NZS 8409:2004)*
- Industry Best Practice Guidelines
- JNL's Integrated Management Systems.

Masa Ueki
Managing Director
JUKEN NEW ZEALAND LIMITED

Sheldon Drummond
IMS Manager. General Manager Forests
JUKEN NEW ZEALAND LIMITED

Reviewed: August 2014

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18th August 2014

To – All JNL Logging Contractors

From – GM Forests JNL

MECHANISATION OF LANDINGS

Juken New Zealand Ltd continue to drive towards zero harm in all of it's operations, with particular emphasis on the high risk zones at logging worksites. The improvements that have been made in our collective operational processes during recent years have made a significant difference to our safety performance and your efforts in assisting to achieve this are very much appreciated

Mechanisation on landings has been available as a technology for many years albeit historically an expensive option for some situations. Given the rises in wage levels, the costs and environmental issues associated with the building of large landings to accommodate safe manual practice, and, the increasing efficiencies brought about by technology, the mechanisation of landings is now on a par if not an improvement to costs per tonne of production

In safety terms, clearly the elimination of workers on foot from the landing zone is a major opportunity to reduce harm. Given the above considerations, there is clear improvement to JNL's operations by mechanising our landings

It is therefore JNL's directive that all logging operations under the control of JNL, will run mechanised landings by January 2015. This will include automatic chokers and or grapple yarding, together with a log processor that will trim as well as buck to length. The result is a reduction in manpower, no workers out of cab in the landing work zone (one marking logs and doing final bucking around the log stack area) an increase in equipment, better log flow during peak production and at times smaller landings

JNL do not envisage any exceptions to this directive, it is existing technology, well proven and is an obvious elimination of risk to the workforce at our logging sites. We applaud those of you who have already taken this initiative and look forward to further mechanisation as may be appropriate during times to come. If there are any reasons why it may be difficult for you to achieve this directive by January 2015 please contact your JNL Manager asap to discuss

Thank you again for your efforts in assisting our forest operations to achieve zero harm in the workplace

Best regards

Sheldon Drummond — General Manager Forests — Juken New Zealand Ltd

David Hilliard — Forest Manager — Ngaumu Forest

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14th March 2012

To – All Staff , Contractors and Contractor and Company Employees

From – G M Forests

RE: NATIVE TREES IN OUR FORESTS

This memo is for your information regarding the NZ laws about harvesting of native trees within our forests. A "native tree" can be described practicably in these terms, as a tree that was already of size when the pines were planted, was saved by the forest owner and has grown on among or adjacent to the pines. It does not include native regrowth that has grown up with our production forest.

- Basically no felling of such native trees is permitted within NZ without special permission.
- In the event that one or two native trees are posing a safety or logistical problem to our logging operations, etc, you will need to get JNL management's approval prior to felling such. (Logging supervisor or higher)
- If any native trees are felled with JNL's permission, they are not to be cut into boards, slabs, or other timber, without special permits from the Government. The only use that can be made of fallen native trees without special permits is that of firewood.

Please note that Government penalties for felling or milling of native trees are severe.

Could you please ensure that JNL operations comply with the above Government regulations.

S Drummond

General Manager Forests

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Tuesday, April 08, 2014
JNL Forest Staff, Contractors and Contractor's Employees.

Maximum Hours of Work

Recently Juken New Zealand ltd have recognized that some of our employees are working hours in excess of what would be deemed safe work practice.

Forestry operations and truck driving are recognized as operations with the potential for employees to be subjected to working longer hours for sustained periods, which can be a contributing factor to accidents. Juken New Zealand Ltd wish to take measured and responsible action to limit this hazard.

Following due consideration, Juken New Zealand ltd is now imposing a maximum limit of hours to be spent on site which will be as follows. These rules do not over ride and are subservient to public road driving rules (log book rules) These rules shall apply to all jobs in JNL forests.

- No more than 12 hours maximum on site at work (including rest breaks)
- No more than 14 hours total inclusive of travel to and from work site. (including rest breaks)
- There will be a minimum of one 24 hour continuous period off duty per week.

Where it may be deemed necessary for any reason to operate machinery or any job longer than the regulation 12 hours maximum, a fresh operator who has not worked 12 hours prior, will be required to continue the operation.

In the case of fire or emergency, longer hours of duty may be approved by the Forest Manager, after due consideration to the tasks being undertaken and associated risk factors. However, every effort will be made to avoid such occurring.

Any employee either directly of JNL or contractor, or contractor's employee, found working outside of the above regulations will be stood down and disciplinary action will be taken. This rule is effective immediately.

Sheldon Drummond
General Manager Forests
Juken New Zealand Ltd