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RISK MANAGEMENT

Risk Assessment and Hazard Identification

We recognise that risk assessments are the most important part of effective health and safety management.

Risk assessments help us to prevent accidents and ill health by considering the hazards that exist and how we manage them. Is the hazard an actual or potential source of serious harm? This may include harm that may be significant due to extent and frequency of exposure to the hazard, or harm that does not usually occur or is not easily detectable until a significant time after exposure, e.g. noise and chemicals. From these assessments, we can develop safe systems and methods of work and ways to prevent problems occurring.

We will:

- Appoint a competent person or persons to carry out risk assessments.
- Carry out suitable and sufficient risk assessments of our hazards using the *Hazard Identification Plan*
- The *Hazard Identification Plan* requires a risk assessments on hazardous activities involved _
- Implement the control measures and further actions required to reduce risk identified in the assessments.
- Bring the significant findings of the risk assessments to the attention of those affected. This includes all workers including employees, contractors and volunteers.
- Amend our risk assessments when changes occur, and review them regularly to ensure they are kept up to date.
- Train staff on the principles of risk assessment, in particular the identification of hazards, and the implementation of control measures to remove or reduce the risk.
- The M D shall ensure that a company Hazard Register is maintained and regularly updated.

PROCEDURES FOR IDENTIFYING SIGNIFICANCE OF HAZARDS

There are many ways to identify hazards, such as:

- Think about the work you do
- Legislation (e.g. heights, equipment)
- Incidents (accidents and near misses)
- Workplace inspections
- People reporting hazards
- Annual Safety Assessment

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Once a hazard or potential hazard has been identified it will be assessed for significance using the TLTC Risk Assessment Matrix below.

TLTC Risk Matrix To treat risks and hazards		Consequences				
		Injuries not requiring medical treatment	Minor injury or First Aid Treatment	Serious injury causing hospitalisation or multiple medical treatments	Life threatening injury or multiple serious injuries causing hospitalisation	Death or multiple life threatening injuries
Likelihood		1-Insignificant	2-Minor	3-Moderate	4-Major	5-Extreme
Is expected to occur in most cases	5-Almost certain	MODERATE	MODERATE	HIGH	HIGH	HIGH
Will probably occur	4-Likely	MODERATE	MODERATE	MODERATE	HIGH	HIGH
Might occur at some time in the future	3-Possible	LOW	MODERATE	MODERATE	MODERATE	HIGH
Could occur but doubtful	2-Unlikely	LOW	LOW	MODERATE	MODERATE	MODERATE
May occur but only in an exception	1-Rare	LOW	LOW	LOW	MODERATE	MODERATE

Category	Action Required
Risk is high:	Do not attempt.
Risk is moderate:	Develop management plan to minimise risk prior to proceeding. This should be done through TLTC's Hazard Identification plan. Specific site procedures may have to be added if required.
Risk is low:	Continue with best practice.

Steps	Recap–five step process
1	Identify the hazards
2	Decide who might be harmed and how
3	Evaluate the risks and decide on precautions – See TLTC's Risk Assessment Matrix
4	Record your findings and implement them. Determine review frequency (check to ensure controls are effective)
5	Review your assessment and update if necessary

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CONTROLLING RISKS

Risks will be controlled by working through the following steps (also refer to the Hazard Analysis Form in the Internal Audit):

- **Eliminate** the risk from the work place if this is possible, e.g. replacing lead based paints with acrylic paints. If it is not possible or reasonably practicable to totally eliminate then,

- **Minimise** (includes isolate e.g. by guarding machinery) the likelihood of harm from the hazard e.g. use safe work practices, protective clothing and equipment, monitoring and ensure information and training is given.

Minimisation includes:

- Where appropriate, and with employee's consent, health monitoring in relation to exposure to significant hazards is undertaken
- Any new hazards identified are incorporated into the Hazard Register and all employees are informed
- Any new machinery/equipment/plant/tasks/chemicals/poisons are assessed before use, and safety controls/practices are established
- All employees are aware of emergency and evacuation procedures.

After these steps have been taken the M D or Health and/or Safety Coordinator shall monitor whether the hazard is under control. In particular the M D shall ensure that all new hazards are being identified and that appropriate controls are put in place for each new significant hazard.

The M D shall ensure that information pertaining to hazards is used to develop employee training and emergency procedures as appropriate.

Where specific hazards require specialist advice the M D shall ensure this is obtained where internal competency is not available.

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INVISIBLE HAZARDS

Noise	Noise induced deafness is extremely common. The psychological effects of not being able to hear other people talking can be severe.
Vibration	Vibration disease can leave a person severely affected, permanently
Gradual Process Injuries	Repetitive work in various industries can leave people with discomfort, pain and injury.
Stress	Stress (most specifically, the exposure to too much work in the form of constant pressure, constant demands and recurring deadlines) has been shown to result in increased rates of heart disease and mental illness.
Computer use	For some people, constant computer use can result in severe discomfort, injury and pain. This may compromise their future employment.

Safety Data Register

Safety Data Sheets (SDSs) are designed to protect the health and safety of people in the workplace by providing information on the hazards of substances and how they should be safely used, stored, transported and disposed of. SDSs also describe emergency procedures, such as what to do in the event of a spill or fire.

Instructions: Record *details of all chemicals (hazardous substances) used or stored on site in the* ***Safety Data Sheet Register*** *and ensure the MSD sheets are available to staff.*

Guide to Safety Data Sheets: *https://worksafe.govt.nz/topic-and-industry/hazardous-substances/managing/safety-data-sheets/*

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Personal protective equipment (PPE)

Requirement for Use of Personal Protective Equipment
It is the Company's policy that personal protective equipment shall be provided and worn.

Provision of Personal Protective Equipment

Clothing and Footwear
All employees will wear clothing and footwear consistent with New Zealand Standards to the employment task. *For detail see below.*
Issue of Personal Protective Equipment
All personal protective equipment is ordered, purchased and supplied by the company in case of employees. At the point of issue it will be the responsibility of the employee to ensure that the personal protective equipment is of the correct size and type for their duties.
Contractors are expected to supply their own PPE and is must meet or exceed our standards.
Training
The company is responsible to ensure that where personal protective equipment is to be worn by employees, that they are trained in the correct way to use the equipment.
Condition of Issue
- It is a condition of employment that the personal protective equipment issued shall be used for the purpose it was made and worn when needed.
- Failure to wear the appropriate personal protective apparel will result in the employee being removed from the site without pay until such time as compliance with the requirement is met.
- Repeated breaches of this provision will result in disciplinary action being taken against the employee in accordance with the Company's disciplinary procedure.
- Clothing or equipment must not be interfered with in any way from its original design.

Replacement Issue
Replacement of damaged or unserviceable personal protective equipment will be actioned on presentation of the unserviceable equipment to management. If the item is lost or stolen, then replacement must first be approved.
Long Hair
Long hair shall be confined in such a manner as to prevent it being caught by any moving part of any tools or machinery.

Clothing

All clothing shall fit fairly closely about the worker, be comfortable and allow free movement.
Damaged or torn clothing shall be properly repaired or replaced where necessary.

Clothing/equipment shall be kept clean and properly maintained.
Clothing of high-visibility colours should be worn so that workers or other persons entering operation areas are more readily seen by others (badly faded high-vis clothing should be replaced where necessary).

Leg protection

All workers required to use a chainsaw shall wear safety leg protection complying with either: AS/NZS 4453.3 1997 Protective clothing for users of hand held chainsaws, Part 3, Protective leg wear, or relevant English language standards issued by organisations that are Member Bodies of the International Organisation for Standardisation (ISO) or CEN.

Safety footwear

All workers engaged in arboriculture operations shall wear footwear which has safety toe caps complying with either AS/NZS 2210 Occupational protective footwear Part 1; or any other standard with the same or relevant English language standards issued by organisations that are Member Bodies of the International Organisation for Standardisation (ISO) or CEN.

Safety helmets

All safety helmets shall comply with the requirements of NZS 5806:1980 Specification for industrial safety helmets (medium protection) or relevant English language standards issued by organisations that are Member Bodies of the International Organisation for Standardisation (ISO) or CEN.
Safety helmets shall be worn at all times by all persons all those on the ground, in or about an arboriculture operation.
Machine operators who are fully protected by a certified protective structure –
However, should the operator cease to be fully protected by the canopy, then a safety helmet shall be worn.
Safety helmets shall be colours that are hi-visibility in the workplace.
Helmets shall be inspected before use and removed from service if signs of excessive wear or damage are found. Otherwise helmets shall be replaced as recommended by the manufacturer.
Helmets should not be stored in a place where they are exposed to direct sunlight. Paints, petrol, oil or solvents should not be applied to helmets, as they can cause deterioration.
All safety helmets should have a chin strap to prevent accidental loss or removal while working aloft.

Hearing protection

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All workers shall wear hearing protection in any area subject to harmful noise (see Appendix four for noise levels and grades of hearing protection). All chainsaw operators shall wear at least grade 4 earmuffs.
Earmuffs shall be inspected before use and removed from service or replaced where necessary, if signs of excessive wear or damage is found.
Ear Plugs may be used as an alternative however they must be rated to at least grade 4 and be securely fitted.

Source: BPG - Safety Requirements for NZ Arboriculture Operations **2015**

EXPOSURE TO CONTINUOUS SOUND AND REQUIRED HEARING PROTECTION

Source	Decibel	Decibel exposure level for a working day	Hearing protection required
Jackhammer	120	Over 115	Seek expert advice
Sandblasting	112	110-115	Grade 5 earmuffs
Chainsaws	106-109	104-109	Grade 4 earmuffs
Brush-cutter	104-106		Grade 4 earmuffs
Petrol-driven tools	100	93-103	Grade 3 earmuffs
Pneumatic drill	100		Grade 3 earmuffs
Boiler shop	100		Grade 3 earmuffs
Older machinery	90-95	92-97	Grade 2 earmuffs Or ear plugs

Eye protection

Suitable visors or safety glasses shall be worn for eye protection during all arboriculture operations.
Eye protection shall be inspected before use and removed from service or replaced where necessary, if signs of excessive wear or damage is found.
Where safety glasses compromise the effectiveness of hearing protection a safety visor or some other form of eye protection that does not compromise the effectiveness of hearing protection shall be used.

Hand tools

All tools used shall be kept in good working condition, be properly sharpened where applicable, and should be restricted to the use for which they are intended.
Handles shall be securely and correctly attached to tools.
All tools shall be removed from a tree or secured in such a way that they cannot fall when the worker has finished the task or when a crew is finished for the day.

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Personal protective equipment (PPE) for climbing. Minimum requirements

- All climbing equipment shall comply with applicable safety standards
- All equipment shall be used in compliance with the manufacturer's conditions or instructions
- All PPE is inspected before work commences in The Living Tree Companies hazard identification by a qualified or competent person at site
- A recorded inspection of all PPE is to be conducted every 6 month and keeper in TLTC H&S calendar

Minimum PPE requirements for climbers working with The Living Tree Company	
Helmet	Climbing style helmet with chin-strap
Boots	Chainsaw protective climbing boots with steel cap
Glasses	Safety glasses if conditions allows,
Harness	Tree climbing work positioning harness with sliding d-bridge construction and rated side rings for the lanyard use Work positioning
Climbing system	Carabiners and prussic or mechanical devices that makes up a complete climbing system rated to 22KN and
Rope	A rope designed for tree climbing with a minimum breaking strength of 22kn
Lanyard	A secondary safe work positioning lanyard used for secondary Safety lanyard
Carabiners	Triple locking, minimum breaking strength 22kn