Revised: Jan 2018 1/4

Procedure to inspect and remove potential bat roosts

In this document, The Living Tree Company (TLTC) has outlined its procedure for work in forests (plantation and native), specifically for inspection of potential bat roosts in trees. This procedure and our Hazard Identification form (including risk management) are to be carried out daily at every worksite that the The Living Tree Company engages.

As the New Zealand bats live in hollows in trees, there is a serious likelihood that dead and declining trees have been selected by bats to roost in. This limits us by not being able to climb the identified roosting tree as the anchor point would be compromised structurally. In this scenario we would use neighbouring trees as anchor points for safety. This allows us to climb in a healthy tree to a strong anchorage point at a height above the structurally unsound roost tree for safe work practice.

We follow a Risk Matrix to identify risks at each site.

			CONSEQUENCE				
			Injuries or ailments not requiring medical treatment	Minor injury or First Aid Treatment	Serious injury causing hospitalisation or multiple medical treatment cases	Life threatening injury or multiple serious injuries causing hospitalisation	Death or multiple life threatening injuries
			1- Insignificant	2 - Minor	3 - Moderate	4 - Major	5 - Extreme
LIKELIHOOD	Is expected to occur in most circumstances	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 exceptional	1 - Rare	Low	Low	Low	Moderate	Moderate

- **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.

E: info@thelivingtreecompany.co.nz | **P:** 027 726 7382 | **W:** www.thelivingtreecompany.co.nz

When climbing aloft:

Hazards may be: falling from height, people on the ground hit by debris, climbing dead trees.

- The visual tree health, hazard id and risk assessment shall always be done before climbing by a Level 4 qualified arborist and documented in The Living Tree Company's Hazard Identification form
- Everyone climbing shall be fully qualified and competent to fulfil the task
- Always 2 arborists on site
- Only structurally safe trees are to be used as anchor points for life support
- There should be no one under the tree when the climber is aloft (risk of dead branches falling from height as climber moves through tree)
- Dead trees should only be accessed by swinging across from a healthy neighbouring tree with a suitable anchor point for life support
- The roping angle for the main life support anchor point should at no point exceed a roping angle of 45 degrees to avoid risk of swinging back into the tree
- If swinging across to a structurally compromised tree, make sure the climber always swings to the top of the compromised tree to eliminate debris falling on the climber
- Climbing gear is inspected every day as part of The Living Tree Company's Hazard Identification by trained and competent staff and documented in the form
- All climbing gear should be rated to the New Zealand standards for arboricultural work
- There should always be a spotter on the ground to ensure no one walks into the work zone and to communicate with the climber
- Every site will have a work zone determined before climber goes aloft. This zone shall be treated as a no go zone when climber is moving aloft. Everyone at site has an obligation to be well aware of where this zone starts and ends
- All anchor points should be selected by a Level 4 qualified arborist
- If there is any possibility that a climber may be injured in a potential swing back into the main healthy tree, do not attempt to swing across to the dead tree

E: info@thelivingtreecompany.co.nz | **P:** 027 726 7382 | **W:** www.thelivingtreecompany.co.nz

- Climber's climbing line must always be useable to descend to the ground from any point of the tree
- Climber will always bring a spare rescue line. This line shall be attached next to the climber's anchor point as a secondary lifeline for rescue. If the climber's main system is compromised this will mean we can ascend to the climber and bring the climber down in a safe manner
- Climber shall at no point be de-attached from a life supportive climbing system (free climbing)
- Climber shall never climb above the anchorage point
- Rescue climber on the ground shall always be prepared to make a rescue and always be in visual and communicable distance to the climber aloft.

E: info@thelivingtreecompany.co.nz | **P:** 027 726 7382 | **W:** www.thelivingtreecompany.co.nz

In some of these trees, we may need to use chainsaws to remove cavities and hollows in trees. Some Hazards may be cuts by chainsaw to operator, but there are ways we mitigate that:

- Operator is fully qualified
- Always 2 operators at site
- Full PPE for chainsaw protection to be used, these needs to for fill the NZ safety standards recognised by Work Safe
- *Chaps/Chainsaw protective pants*
- *Ear protection*
- *Climbing helmet*
- *Steal cap lace up boots*
- *Eye protection in form of safety glasses or wiser*
- Only battery driven chainsaws will be used to eliminate fire risk, fuel spill and exhaust fumes. **Revised 31/03/17: petrol-driven chainsaws may be used in trees outside the pine production forest. If that's the case, we need to have a site-specific fuel station allocated in the hazard ID, all saws have to have spark arrests and we need a spill kit at site. All vehicles need to be up to the site specific standard for transporting fuel.**
- Always 2 hands on saw when cutting
- Always 2 anchor points for life support when cutting aloft
- Always a spotter on the ground to make sure there is no one under the tree or in the pre determinate work zone
- Never cut sections that are too big, to ensure they won't be hung up in neighbouring trees
- Always work to standard in The Living Tree Company's nr 7 Procedures for Use of chainsaws aloft SOP

The Living Tree Company is working to NZArb's Best Practice Guide.

http://www.nzarb.org.nz/site/nzarb-demo/files/PDFS/Arb-BPG-2015-V1.pdf

As arborists this is what we do all the time and are trained for. We are always looking at managing risks and hazards at all sites.

E: info@thelivingtreecompany.co.nz | **P:** 027 726 7382 | **W:** www.thelivingtreecompany.co.nz