

- Safety Alert   
  Best Practice Advice   
  Environmental Alert  
 Health Alert   
  Innovation Advice   
  Environmental Focus

Notification Number

BOP 002

Date : 16<sup>th</sup> September 2021

Focus Group: Manual tree felling

Region: Bay of Plenty

Topic: Tree assessment

## Background

- While executing the back cut, a faller noticed a shift in the tree's balance and the tree changed its lean. A second later the faller felt the ground move under him. He immediately retreated up his escape route and seconds later the tree uprooted and fell to the ground safely.
- While doing the initial tree assessment, there was no indication of shallow soils or rocky terrain in the surrounding area or at the individual tree selected. No evidence of wind damage in the remaining stand. The tree had been brushed by a previous felled tree.
- It was a calm day and wind was not a contributing factor. No machine activity took place in the area.
- The faller is a very experienced senior faller holding current certification.
- The crew has access to a untethered self-leveling falling machine but due to the topography could not use it in this area.
- The faller reported that he had planned to refuel and sharpen his chain after the tree was felled. In hindsight the faller believes that due to his chain needing re-sharpening it took him longer than usual to perform the cuts which allowed "pressure to build up" at the base of the tree. We can't be sure what if any affect this had on the tree uprooting, but it's worth considering how a blunt saw affects the felling process especially when dealing with a hazardous or challenging tree.

## Risk

- Although there were no injuries sustained due to this incident, there was the potential for a severe outcome. The faller reacted immediately when he became aware of how the tree was behaving. He had prepared his work site correctly and had good escape routes in place.
- Experienced fallers will always check for signs of shallow or unstable root systems, rot and wind damaged trees or landslides and slips. But occasionally, there may not be any obvious indication of instability. It is important that a faller notices changes in the tree's behavior while making his falling cuts.
- The main risks when dealing with compromised root systems are:
  - ⇒ The tree can fall in an unintended direction, putting the faller in harms way,
  - ⇒ The tree could uproot, create a root pocket and there is a possibility that the tree could pivot back into the root pocket, especially if it results in a hung-up situation due to a change in falling direction,
  - ⇒ The unstable tree could be adjacent or behind the tree that the faller is working on.

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## Learnings

- All fallers must be familiar with and comply with the mandatory 5 step tree felling procedure. Step 2 deals with individual tree assessment. A part of this assessment is checking for root disturbance, tree stability, rot and ground disturbance. Fallers should also be aware and alerted to the following:

Signs of land movement, depressions, wetness and slips that could affect tree stability	Manually felling trees adjacent to salvage corridors and infrastructure (new roads / landings)
Signs of wind damage in the stand and signs of decay, damage or rot at the base of a tree	Manually felling any standing trees that ropes brushed or passed by or trees where a felling machine may have worked adjacent to.
Manually felling topped tail spars after use (ACOP 14.7)	Any signs of rock layers, poor or deformed stems, stunted growth or diseased and stressed trees—indicate compromised root systems
Manually felling trees adjacent to used extraction or access tracks (possible root disturbance due to machine movement)	Any standing trees where root balls / slash / dirt / rocks have been piled up against the base of tree. These should be uprooted with hauler ropes or felled

- Where manual tree falling is required this should be done prior to any machine access or mechanical falling.
- Where trees are identified as potentially dangerous or challenging and machine access is possible, it should be mechanically felled.
- Ensure that your chainsaw, bar and chain, wedges and hammer are always in the required working condition. Ensure that you have access to a spare chainsaw that's in a similar condition.



Discussion Notes : New or additional learnings *(Please forward any significant comments to your RMF supervisor)*

Discussed with employees

Distributed

Site Manager : \_\_\_\_\_

Date : \_\_\_\_\_