

6<sup>th</sup> December 2017

SAFE-HALO



## Lone Worker - Environmental Consultant

### Introduction

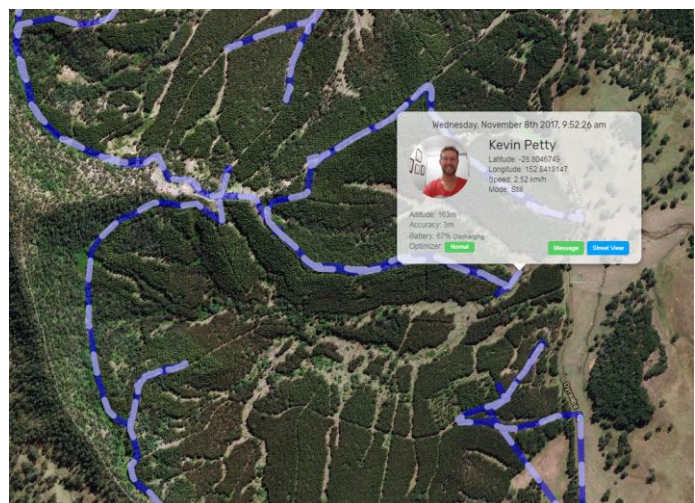
As an environmental consultant, I am engaged by the Forestry Corporation of NSW to undertake inspections within state forests and plantation areas. My task brief often includes tactical planning, forestry road inspections, inventory assessments, timber stand assessments, timber harvesting plans and environmental assessments. As an independent consultant, I perform these tasks alone.

I can recall during my time managing staff at Forestry Corporation of NSW, that we would use a manual working alone register, which relied upon a broad location description and an estimated call in time. It was always difficult to determine how long to wait after the nominated call in time had passed, to send assistance or initiate a rescue party. An App such as Safe-halo would have easily tracked and located the employee, enabling quick and precise decisions on assistance or otherwise.

### Background

On the 8<sup>th</sup> of November 2017, I was engaged to undertake a tactical plan within the Sugarloaf State Forest eucalypt plantation, where isolation is a risk. This State forest covers 10,000 hectares of land within the Northern Rivers Region of the far north of New South Wales. The nearest town, Mallangane, offers limited facilities to its population of 140.

At the time of this inspection, the region had also



undergone significant rainfall, making travel within the forest difficult. There was a higher risk of getting

bogged or stuck on natural surface tracks and roads. Coupled with other hazards typical of forested environments include fallen trees, wash outs, eroded roads, rocky surfaces and steep and rugged terrain.

### The Problem

Current entry procedure includes texting or emailing a FCNSW supervisor my planned location, identified State Forest, road &/or plantation name and an estimated finish time. Phone reception and unexpected delays can cause issues when trying to notify my supervisor of my revised finish time or my location. It also doesn't consider times when I leave the vehicle to walk into the plantation or forest where I may be at higher risk of injury or incident.

### Location/distance

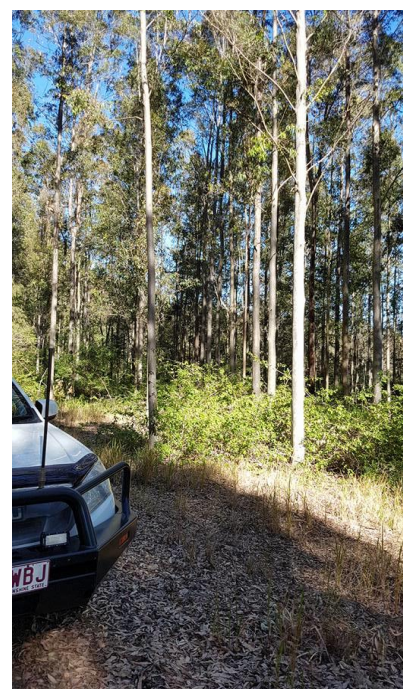
My inspections are often carried out in eucalypt plantations that are generally located adjacent to State forests, and often cover more than 10,000 hectares. These plantations are often up to 150km from my home base and take up to 2 hours of drive time to reach.

It is not unusual for me to cover up to 250km of travel within a 10hour working day. Fatigue is certainly a factor.

### Terrain

The forest landscape is usually in more remote areas ranging from creek flats to steep mountainous areas. Plantations are typically on more moderate terrain on average, however any forest area has difficult terrain.

- Roads surfaces could be bitumen, gravel, dirt, grassed tracks or even overgrown blocked trails.
- Most forest areas border private agriculture properties generally remote from towns or villages
- Forest areas and plantations consist of large tree overstorey and varying dense understorey depending on terrain, soils and moisture. Lantana is a significant problem in the forest landscape on the north coast.



- Forest landscapes can change quickly due to many factors including geology, rainfall events, natural occurrences including mass movement and fallen trees.
- The risk of snakes and other biting animals or insects is ever present in the forest environment. Ticks can be a major issue this time of the year on the far north coast.

## Signal

Phone reception throughout the State forest in the Border Ranges area is patchy and variable due to mountains and valleys.

- Intermittent 4G signal is obtainable when I use my iPod tablet and Samsung 7 edge mobile devices.
- My vehicle is also fitted with UHF and handheld UHF is an option, however reception again is variable in the forest environment.

## Cost

Safety in any business is a priority, and safety systems need to be effective while fitting into the cost structure of your business. Minimising or eliminating risks and providing a safe working environment is paramount to maintaining a healthy and happy workforce.

Safe-halo utilises what I already have, a smart device and a computer, meaning no out lay for additional expensive equipment. Safe-halo is cloud based located on microsoft's Azure servers so there are no software to install.

## Alternatives

Alternate working alone or working remote systems previously tried have relied upon

1. manual entry of information into a register, be it manual or electronic,
2. interpretation of the location based on an individual's knowledge of the area
3. an estimated duration in which they anticipate being within that area.

Work site locations were generally quite broad and could be anywhere within a 300 hectare area.

These systems unfortunately all present these problems:

- Exact location of staff at any time was not known
- Alerts were unable to be sent by staff
- Set call in times were inflexible and didn't account for injuries or problems prior to this time
- Human errors in estimating return times, location distances, road names, route directions etc
- Human errors in forgetting about staff working alone.

## The Solution

Safe-halo provides a mechanism to set time alerts, tasks and real time tracking to enable family or co-workers to track your location on a PC at home or in the office.

The app is quick to download, and is easy to use, while the cloud based management system (the Hub) makes my location details visible to everyone on my account.

Safe-halo is not reliant upon human intervention to remember when someone should be checking in. Instead it will sound audible alerts, send system generated SMS and email alerts to key stakeholders, notifying them of a missed check in.

Even in times of intermittent signal, Safe-halo stores my current GPS location within my device, and uploads the coordinates as soon as signal is received.

I have no hesitation in recommending Safe-halo as it provides me with peace of mind that if I need assistance, I can be located accurately, and that help will be able to access my location very quickly and effectively.

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## Petty Enviro Services

